

PRODUCTION AND TRADE

A GEOGRAPHICAL SURVEY OF ALL
THE COUNTRIES OF THE WORLD

BY

E. G. R. TAYLOR, D.Sc., F.R.G.S.

PROFESSOR OF GEOGRAPHY,
UNIVERSITY OF LONDON.

WITH 88 BLACK AND WHITE MAPS

LONDON

GEORGE PHILIP & SON, LTD., 32 FLEET STREET

LIVERPOOL: PHILIP, SON & NEPHEW, Ltd., 20 Church Street

1930

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PRINTED IN GREAT BRITAIN

PREFACE

A SUFFICIENT interval has elapsed since the period of dislocation due to the World War for the elimination of those economic changes that are ephemeral and for the fixation of those destined to be permanent. It is once more possible to speak of normal figures and normal trends of output and trade, however far the normal of 1930 may be from that of 1913.

The acceptance and recognition by the Business World of changed conditions makes it alike possible and necessary to rewrite entirely, and under a new title, the Business Man's Geography which first appeared ten years ago.

The original work was addressed to the Business Man at a time when the old landmarks had vanished : the present work is addressed especially to the Student, the Business Man of the future, who at the University, Polytechnic, Business College or at home after a day's work, desires to get a firm grip on the basal economic facts with regard to the world of to-day.

The plan of the book remains unchanged. Countries are treated in alphabetical order for ready reference : commodities are carefully indexed for the same purpose : commerce is summarized so as to allow for ready comparison. For each country, the essential facts as to Physical and Human Geography are set out, since these are fundamental controls upon the economic situation.

Every superfluous word or sentence has been carefully eliminated, the aim being to convey the maximum of information in the minimum of space : thus it is hoped that the book will prove useful alike as an epitome of essential knowledge to the examination candidate, and a handy reference work to the man of affairs.

E. G. R. T.

THE MAPS

The black and white maps inserted in the text show the most important physical controls upon production (i.e. uplands or mountains, and defect of water supply), by cross-hatching, and the various commercial products by symbols, which are explained on the "characteristic sheet" facing page 1.

Each symbol is placed as accurately as possible in the centre of the district producing the commodity in question. Modifications of the symbols show the relative importance and potential importance of the various commodities. Only such towns are inserted as demand the attention of traders and agents, and these are graded according to their importance by means of different shaped stamps. These stamps allow of comparison only between towns on the same map ; for example, Buenos Aires has the same stamp as Kinshasa (Congo), since although differing greatly in size, each of these towns is of first importance to the country in which it stands, and should be the first towards which trade enquiries are directed. In countries where communications are poorly developed, even short lengths of railway are shown, whereas in countries with a fully developed system (e.g. Canada) only main routes are indicated. As in the text, the criterion of insertion of any matter on the maps has been its practical commercial importance.

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CONVENTIONS

To* *Product of primary and growing importance in Commerce*

To *„ „ importance in Commerce*

To* *„ „ secondary and growing importance in Commerce*

To *„ „ importance in Commerce*

[To]* *Product undeveloped, slightly developed, or developed for local use only, but likely to become important*

[To] *Product undeveloped, slightly developed, or developed for local use only*

□ *Town of first importance in the region mapped*

○ *„ secondary „ „ „*

● *„ minor „ „ „*

(f5) *Total approximate per capita Foreign Trade per annum*

6 X Brit. Is.
741,000
Sq.m.

Total area of country mapped

Europeans
Africans
6 Mill.

Numbers and character of population of country mapped

--- *International Boundaries*

++++ *Railways*

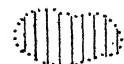
===== *Canals*

----- *Caravan Routes*

~~~~~ *Rivers with anchor at head of Steamer Navigation* **~~~~~** *Other*



Highlands affecting development of country



Marked deficiency of Rainfall



Summit-lines of important Hill or Mountain Ridges



Inland Water Surface

10° N. *Latitude*

12 hrs. F.

*Standard Time as adopted in country mapped
Fast (F.) or Slow (S.) of Greenwich*

10° E *Longitude*

**F.
2 1/3**

*Mean Solar Time. Fast (F.) or Slow (S.) of Green-
on Meridian shown (in cases where no Standard
is given)*

ABYSSINIA

Area and Population.—The independent Empire of Abyssinia (officially Ethiopia) includes three kingdoms and various territories and dependencies, and is ruled over by an Empress, with the assistance of a King Regent. Britain, France and Italy, with territories on the Abyssinian border, have jointly agreed not to interfere in the internal affairs of the

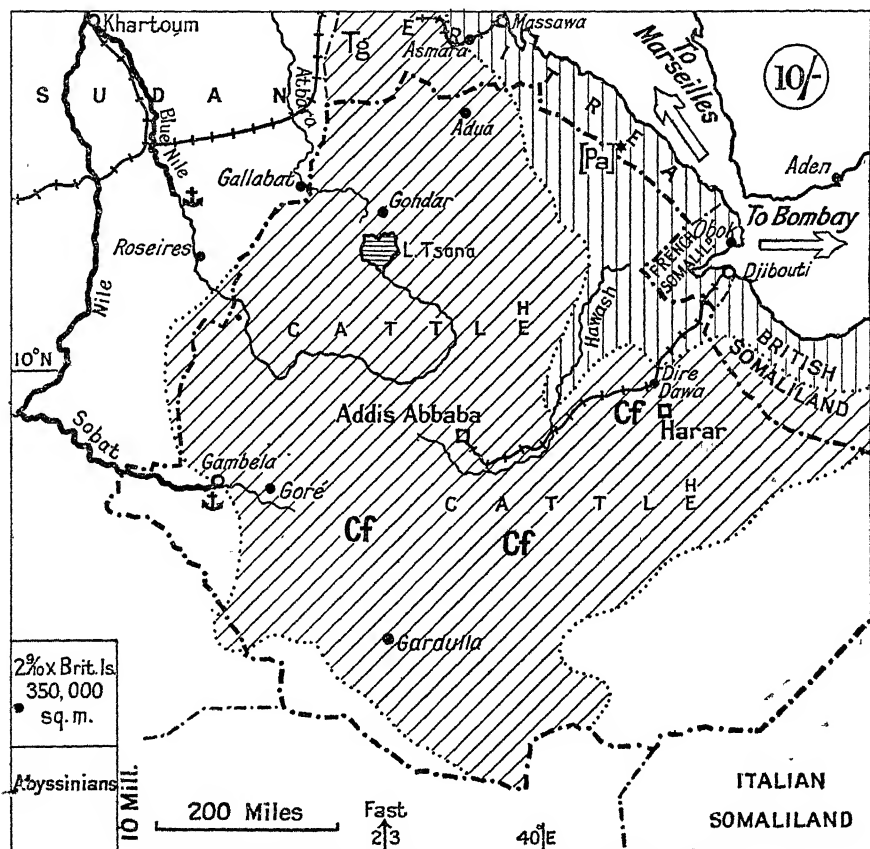


FIG. 1.—ABYSSINIA, ERITREA AND FRENCH SOMALILAND.

Empire, while they safeguard their respective economic interests. The area of the country is about 350,000 square miles (nearly three times the area of the British Isles), with an estimated population of nearly 10 millions. The total trade is probably between £4 millions and £5 millions. The per capita trade, scarcely 10s., is low, since the resources

of the country are quite undeveloped. The ruling classes are soldiers by profession and do not engage in trade, which is in the hands of Greeks, Armenians, Indians and Arabs. The Abyssinians are Christians, the Abyssinian Church being closely connected with the Coptic Church of Egypt. There is no popular education. The Abyssinians are racially akin to the Egyptians, and are not of negro stock, although outlying territories have a negro population.

The chief centres of population are Addis Abbaba, the present capital, and Harar, each with about 50,000 inhabitants. Harar has the largest European population (about 300), and there are a considerable number also at Dire Dawa, on the railway.

Position and General Conditions.—Abyssinia lies between latitudes 3° N. and 15° N., i.e. in a region of powerful insolation, but as the country is a lofty plateau averaging 4,000 to 6,000 ft. above sea-level, and in some districts 6,000 to 12,000 ft., the temperature is modified, and the air is cool, especially at night. The difference between summer and winter temperatures is not great. The summer is the rainy season, as in the neighbouring Sudan, but the great elevation of Abyssinia induces a much heavier downpour than occurs in the Nile valley. This rainfall is carried off by the Sobat, Blue Nile and Atbara, all of which are rapidly converted into swollen muddy torrents when the rains commence, and, flowing to join the Nile, are the cause of the floods in Egypt. The chief eastward river, the Hawash, fails to reach the sea. Since the rain-bearing winds are from the south-west, the leeward slopes of the plateau, looking towards the Red Sea, are dry, and are clothed with thorn-bush and scrub. The greater part of Abyssinia is, however, well wooded, and has abundance of rich pastures, with the result that **cattle** rearing (10–15 million) is the staple occupation of the peasantry, while donkeys and mules are bred as pack animals. *Sheep* and *goats* are also numerous. The climate and soil are excellent for agriculture, which is, however, in a backward state. Millet, cotton, sugar and tobacco are grown at lower elevations, wheat, barley and vines at a somewhat higher level, but the only cultivation of importance is that of **coffee** in the south-east round Harar. Of much greater importance is the *wild coffee*, which grows in unlimited quantities on the south and south-west of the plateau, and forms, with *hides*, the staple export. Some hundreds of tons of *beeswax* are also collected annually and exported.

In 1911 deposits of **potash**, said to be equal to those of Stassfurt, were discovered in the arid region on the Eritrean frontier, and work was commenced by the Italians on a port at Fatimari and a railway to the mineral beds, but the enterprise has had little success.

Trade Relations.—The greater part of the foreign trade goes by the Franco-Ethiopian railway, which runs from the capital across the valley of the Hawash River to Dire Dawa (25 miles from Harar), and thence through French Somaliland to the port of Djibouti. British and Indian shirtings and cotton goods, Indian bazaar goods, French railway and construction material, American petroleum, and miscellaneous European provisions, beverages and manufactures are here imported. The western trade (about £300,000) goes through Gambela, a station leased by the Sudan Government, which is served by steamboat from Khartum in the summer months, when there is sufficient water in the Sobat River, on which it stands.

Afghanistan.

The northern trade, from Gondar goes through Italian Eritrea and the port of Massawa.

General Information.—There is a National Bank of Abyssinia, with head office at Addis Abbaba, and branches at Dire Dawa, Dessieh, Goré and Gambela. The current coin is the Maria Theresa dollar (worth 2s.), but a new coin, the Menelik or *talari*, also worth about 2s., has been introduced. The piastre is one-sixteenth of the dollar, and there are also half and quarter dollars of silver. The copper *besa* is $\frac{1}{16}$ of the talari. Barter, however, is common, and such articles as salt and cartridges are used as currency. Native weights and measures vary with the locality. The metre is largely used at Harar. Mails reach Dire Dawa in 14–16 days, *via* Marseilles. There are British Consuls at Addis Abbaba, Harar, Goré for Gambela, and Dangila. Abyssinia is a member of the League of Nations.

ADEN AND DEPENDENCIES

Area and Population.—Aden is a British fortress, to which are attached for administrative purposes the island of Perim, the Aden Protectorate, Sokotra, and the Kuria Muria Islands (the latter acquired for landing the Red Sea cable). It is administered by a Political Resident, who is also General Officer Commanding. The area of Aden itself is 75 square miles, and population nearly 55,000. The area of the Protectorate is 9,000 square miles, of Perim 5 square miles, and of Sokotra (population 12,000) 1,382 square miles. The total trade of Aden averages £10 millions (excluding Government stores and treasure), since, owing to the large number of vessels touching at Aden (which is a free port and a coaling station), it is an important point of transshipment for various points on the India Ocean. A railway runs to Häbil, a distance of 34 miles.

General Conditions.—Aden and its dependencies lie in the Gulf of Aden, near the entry to the Red Sea. All share the exceedingly hot and dry climate of this region (latitude 12°–14° N.). Hence there are no agricultural industries, and *salt* is the only commodity of local origin. Coffee, gums, hides and skins from the neighbouring parts of Africa (including Sokotra) and Arabia are marketed at Aden; tobacco is imported from India and elsewhere, and made into cigarettes for re-export; cotton piece goods from the United Kingdom and India are imported in large quantities and redistributed to various native African and Asiatic markets, including Zanzibar, Djibouti, Mocha, Bahrain Islands, Basra and others.

The chief coin in use is the Indian rupee. There is an Indian Inland Post Office at Aden, and a branch of the National Bank of India. There is cable connection with the United Kingdom, India and Zanzibar.

AFGHANISTAN

Area and Population.—The independent Kingdom of Afghanistan is ruled by a King, and has an area of 250,000 square miles, and a population of about 8 millions. The capital, and largest city, Kabul, has a population of 100,000; Kandahar, in the south, the chief trade centre,

Afghanistan.

has 60,000 ; Herat, in the west, has 120,000 ; and Mazar-i-Sharif, in the north, has 46,000. The economic importance of Afghanistan is not great, the total trade being estimated at little more than £5 millions (i.e. £1 per head). It commands, however, the main land-route into India, by the Khyber Pass, and is a buffer State between British India and Russia in Asia. The Afghans are, by race and speech, allied to the Persians, and are Mohammedans by religion ; besides the Afghans proper, there are aboriginal hill-tribes allied to those of India. The language spoken is Pushtu, but the official language is Persian.

Position, Climate and General Physical Conditions.

—Afghanistan lies to the north-west of India, between latitudes 29° N. and 38° N., i.e. the latitudes of Algeria and southern Spain. The climate resembles that of the interior of Algeria, i.e., the rainfall is scanty, occurring chiefly in winter and spring, and the summer heat is great, although in winter the cold may be severe. The severity of winter in Afghanistan is accentuated by the great elevation. The core of the country is formed by the lofty Hindu Kush Mountains, which run out in a south-westerly and westerly direction from the Pamirs. The spurs of this range die out to the west and south upon a series of elevated plains, forming part of the Persian Plateau. Northwards the mountains also fall to a plain, which in this case lies at a low level, and forms part of the great plain of Turkestan, drained by the Amu River. To the east the mountains drop sharply to the plains of India, beyond the Afghan frontier. The Hindu Kush Mountains receive abundant snow and rain, and great rivers drain from them in all directions. Of those draining west, the Kabul River, an affluent of the Indus, is the most important, since the route from Peshawar, via the Khyber Pass, follows its valley to Kabul City. From the northern slopes of the Hindu Kush streams flow towards the Amu, but lose themselves on the dry plain. By one such stream stands Mazar-i-Sharif. On another, the Murghab, farther west, stands Merv, a traffic centre in Soviet Russian territory. Westward from the mountains the Hari-Rud, with Herat in its lower valley, flows towards the Persian frontier. Southwards the drainage is by the Helmand to the Seistan depression on the frontier, and in the valley of an affluent of this river Kandahar is situated. These river valleys, carrying the water from the mountains to the dry plains, are the traffic routes, and the centres of cultivation and settlement of Afghanistan : hence their association with the leading cities.

The northern plain has early summer rain, and for a brief season takes on the character of a steppe pasture, gay with flowers, but for the greater part of the year it presents a desert aspect. Similarly the light winter rains on the western and southern high plains lead to a brief spring season of blooming vegetation, which rapidly withers under the summer sun. The lower mountain slopes are clothed with hardy evergreens, wormwood scrub, ilex, wild olives, figs and pomegranates. The higher ranges are clothed with forests of oak, pine and cedar resembling those of the Himalayas.

Human and Economic Conditions.—Wherever sufficient water is available—whether as rain or from streams and wells—the ground is cultivated. Winter wheat and barley are the chief cereal crops, and in well-irrigated regions some rice is grown in summer. Other crops are lentils, peas, beans, etc. Opium is grown near Herat, besides various drugs,

Africa, French Equatorial.

and *madder* is important near Ghazni. The gum-resin of a wild shrub yields *asafoetida*. Of far greater importance, however, are the crops obtained from the extensive orchards. These include apricots, peaches, cherries, plums, figs, almonds, walnuts, mulberries, the whole range of **fruits and nuts**, in fact, which are associated with Mediterranean countries. These form a staple of diet, and yield a surplus for export, the fruits usually in a dried state. On the mulberry leaves **silk**-worms are reared, and native silk and silk goods are an article of commerce. During the season when the plains bear pasture they are grazed by large flocks and herds, which are driven to the river banks or to the mountains for the remainder of the year. *Sheep*, *goats*, *camels*, and *horses* are reared, and *wool*, *hair*, *hides*, *skins* and sheep-skin coats are articles of export, besides affording material for native manufactures. *Timber* is sent down from the mountains to the plains, and into India. Silks, felts and *carpets* are manufactured at the chief towns.

Trade Relations.—Railways approach or reach the Afghan frontier at several points, but all interior trade is by pack-animals—camels, donkeys or ponies. The bulk of the external trade (60–70 per cent.) is with India, going through the Quetta railway, which reaches the frontier at Chaman, south-east of Kandahar. Motor traffic is possible from Chaman, via Kandahar, to Kabul, and from Khaibar to Kabul. Fruit, nuts, grain, wool, hair, hides, silk and drugs leave the country, in return for cotton piece goods and yarn (of Indian origin), sugar, tea and miscellaneous hardware. There are alternative routes via the Indian north-west frontier railways to Kabul. There is some interchange with Persia by way of Herat, and the latter town is not far from the terminus of a branch of the Russian Trans-Caspian Railway, which runs to Merv, hence Russian cotton textiles and manufactures enter by this route. Russian goods, together with native wares (silks, carpets, rugs), come also by way of Bokhara, whence a railway runs to the bank of the Oxus and a caravan route thence to Mazar-i-Sharif, and over the Bamian Pass (in the Hindu Kush) to Kabul. Trade is mainly in native and Indian hands, and is often by barter.

General Information.—The unit of currency in Afghanistan was formerly the Kabuli rupee, worth normally about 8*d.* An Afghani rupee has been introduced of which 20 equal a gold amania. The country has lately joined the International Postal Union, and the metric system has been officially adopted. Mails reach Kabul *viâ* India in 20 days. Too rapid Europeanisation has led to internal disorders. There are Consuls at Kandahar for the Chaman route, and at Jálálábád for the Khaibar-Kabul road.

AFRICA, BRITISH EAST

See **British East Africa**, p. 70.

AFRICA, BRITISH SOUTH

See **British South Africa**, p. 78.

AFRICA, FRENCH EQUATORIAL

See **French Equatorial Africa**, p. 188.

AFRICA, FRENCH WEST

See French West Africa, p. 194.

AFRICA, PORTUGUESE EAST

See Portuguese East Africa, p. 366.

AFRICA, PORTUGUESE WEST

See Angola, p. 16.

ALASKA

Area and Population.—Alaska is an outlying Territory of the United States, acquired by purchase in 1867, and is administered by a Governor. It has an area of 591,000 square miles (nearly five times as large

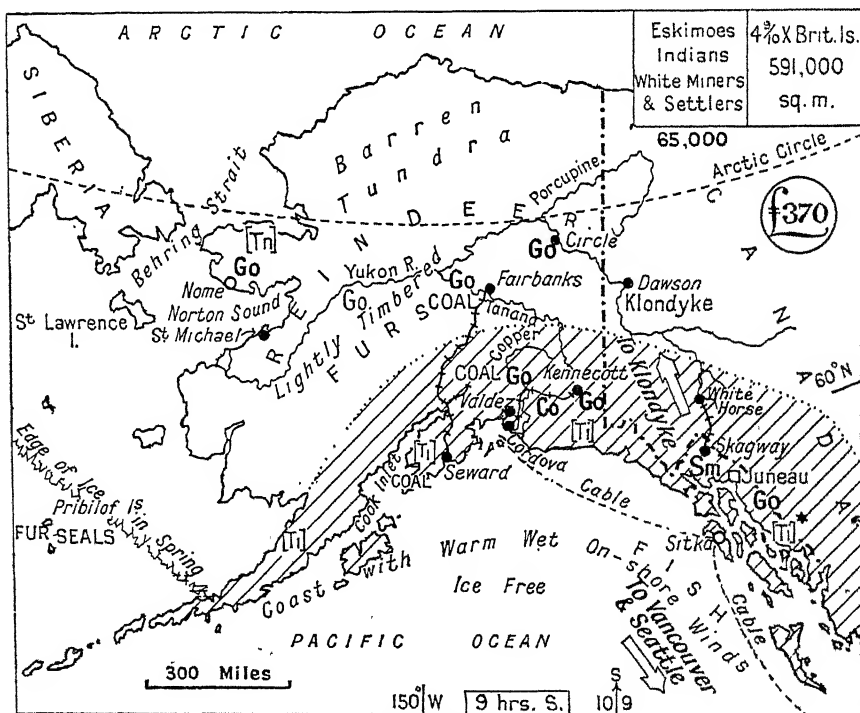


FIG. 2.—ALASKA.

as the British Isles), and a population of only 65,000, of whom a large proportion are Eskimos and Indians. Juneau, the capital, has 3,000 people. The total trade (almost entirely with the United States) is from

Alaska.

£24-25 millions, of which 60-70 per cent. represents exports. This works out at £370 per head of the resident population, but there is besides a temporary influx of some 20,000 workers in the summer season. Such a high figure is usual where practically every necessity of life must be imported, and where almost the entire production is sent out of the country.

Position and General Physical Conditions.—Alaska proper forms the north-western peninsula of North America, and lies roughly between 60° and 70° N., i.e. a considerable portion lies within the Arctic Circle. Politically the territory also includes a littoral region with numerous islands extending southwards to latitude 54½° N., and cutting off the north of British Columbia from the sea. The whole of this littoral belt, together with the southern margin of Alaska proper, and its extension through the Aleutian Islands, forms part of the great western mountain system of North America. The coast resembles that of Norway, with its deep, fjord-like indentations, and as the prevailing winds are from the west, the rainfall is heavy, the mountain slopes are well timbered with coniferous trees, and the climate is unusually mild for the latitude, the harbours being unencumbered by ice. In the interior of Alaska, to the north of the mountains, the country is of relatively uniform elevation, and the chief topographical feature is the Yukon River, which flows from east to west, and enters the Pacific Ocean to the south of Behring Strait. It is navigable for a short season in summer, and is ice-bound in winter. A great part of the Yukon Basin is lightly timbered, especially in the valleys, with spruce, hemlock, birch, aspen, etc., but towards the north it takes on the character of tundra, a treeless waste, clothed with mosses, lichens and dwarf shrubs.

The native Eskimos use dogs as draught animals, since the caribou, or American reindeer, has not been domesticated. Siberian reindeer have, however, been very successfully introduced, the herds numbering ¾ million head, and it is hoped that they will become widely used for transport purposes, since the settlements are scattered over such a vast area. Reindeer meat and hides are exported.

Human and Economic Conditions.—The rivers of south-eastern Alaska, like those of the adjacent territory of British Columbia, teem with **salmon**, and hence salmon fishing and canning is the leading industry of the region, the output being worth over £6 millions. There are besides sea-fisheries of *halibut*, *cod*, herrings and whales which yield products to the value of nearly £2 millions. On Pribilof Islands there is a carefully protected rookery of *fur seals*, numbering over three-quarters of a million. *Fox* farming for *furs* has been established.

Next in importance to the fishing industry is the *mining* industry, chiefly of **gold**, and **copper**, but there is also some silver and lead mined with the gold, and there are promising **tin** deposits in the Seward Peninsula north of Nome. In the Juneau district the gold is obtained from quartz lodes, while elsewhere, e.g. in the Copper River district, behind Nome, and in the Yukon and Tanana valleys, the chief yield is from placer mining. Dredges are employed, and the gold is recovered by hydraulic sluicing, so that relatively low-grade gravels continue to be worked. The output averages 350,000 fine ounces.

Copper is obtained principally in the Chitina district, in the Copper River basin, the value being from £1½ to £2½ millions. There are copper

Albania.

mines also in the Ketchikan district, in south-eastern Alaska, near the frontier of British Columbia.

Coal is mined in the Matanuska field, reached by the railway from Seward to Fairbanks, the output being about 50,000 tons. There is also coal in the Tanana valley which will be useful in the local mining settlements, and a third deposit readily accessible from the sea occurs on Cook Inlet. The total mineral output has been very variable, but of recent years has steadied to a value of about £3½ millions annually. High operating costs, shortage of labour, and a short season are among the contributory causes to this uncertainty, while prices fluctuate widely. *Oil* has been proved in the Cold Bay district.

The *forests* of Alaska have so far been exploited only for local needs (fuel and construction), except that some excellent aeroplane timber was exported during the War. Some of the trees of the coast belt, especially in the south-east, are of considerable dimensions, and are suitable for sawn timber, but, broadly speaking, these forests are more suitable for exploitation as **pulp-wood**. Since there is abundance of water-power, and the forests are on the seaboard, it is probable that a considerable paper and pulp industry will be developed in Alaska, and exploitation has begun.

Trade Relations and General Information.—A railway runs from Skagway (at the head of the Bay on which Juneau stands) to White Horse, whence the Canadian Klondyke is reached by coach or river steamer. Railways also run inland from Cordova and Seward, and the Yukon is navigable in summer. Trade is with the Puget Sound port of Seattle (U.S.A.) and (under restrictions) with Prince Rupert and Vancouver, B.C. Money, weights and measures are as in the United States. There is a British Consul at Skagway.

ALBANIA

Area and Population.—The independent State of Albania was formerly part of the Turkish Empire, but is now a Monarchy with Tirana as its capital, a small inland town of 12,000 inhabitants. Means of communication are very backward, particularly in the interior. The area of Albania is about 17,000 square miles (2½ times as large as Wales), and the population probably less than a million. There are two racial groups: the warlike Ghegs in the north, who are mainly Roman Catholics, and the more peaceful Tosks in the south, of whom a majority are Mohammedans, while a substantial minority belong to the Greek Orthodox Church. There are also some Mohammedans and some Greek Christians in the north. The Albanian language (with differences of dialect) is generally spoken. The largest town, Koritsa, has 24,000 inhabitants; Scutari has 21,000; Durazzo, a port, formerly the provisional capital, has only 5,000; Valona, also a port, has 10,500. Foreign trade is gradually increasing and amounts to about £1½ millions.

Position, Climate and General Conditions.—Albania lies on the west of the Balkan Peninsula between latitude 39½° N. and 42½° N., i.e. in the latitudes of southern Italy. It has the "Mediterranean" type of climate, with hot dry summers, and mild rainy winters, but this

Algeria.

applies merely to the valleys and small coastal plains. The interior is mountainous, and here the summers are cooler, the rainfall heavier, and the winters stormy and often severe. The bordering states are Yugoslavia (including Montenegro) and Greece. The north-eastern mountains are forested with oak, beech and pine; those to the south have largely been denuded of heavy timber and are covered with scrub. The lowlands have the typical Mediterranean vegetation of aromatic and evergreen shrubs and undershrubs. Cultivation is very primitive. Cereals, including **wheat**, do well, as also *vines* and *orchard fruits*. **Olives** are cultivated and those of Valona are of some repute. **Tobacco** of good quality is also grown for export. Livestock, principally *sheep* and *goats*, besides a few horses and cattle, are reared on the hill pastures, and some cheese, wool and hides are exported. The mountaineers live mainly on the produce of their flocks and herds.

Albania had, until recently, no railways, and interior trade is by pack-mule or donkey, hence external trade is mainly by sea, passing through Durazzo or Valona. The agricultural and pastoral produce goes to Italy and to Greece, and the manufactured goods imported come mainly from the same sources. Of such goods, textiles (especially cottons) are most important, while general ironmongery and petroleum are also in demand. Valona, which has a good harbour, and lies within easy reach of Brindisi (Italy), was suggested as the head of a trans-Balkan railway running eastward to Salonica and Constantinople. A railway from Durazzo to Tirana is under construction.

General Information.—Albania has a National Bank, and the unit of currency is the gold franc (25.225 to the £), equivalent to 5 *lek*. There is a British Consul-General at Tirana. Mails are *viâ* Italy. Albania is a member of the League of Nations.

ALBERTA

See **Canada**, p. 95.

ALGERIA

Area and Population.—The French Colony of Algeria is administered by a Governor-General; it has an area of 847,500 square miles (4 times the size of France), including the Military Territory, and a population of 6 millions, including over $\frac{3}{4}$ million Europeans. The foreign trade averages £65–70 millions, or about £11 a head. Imports are in excess, as developments are proceeding. The capital and chief port, Algiers, has a population of over 250,000, and the second seaport Oran has about 150,000. Constantine has 93,000, and eight other towns have upwards of 20,000 people. The proximity of the colony to the mother country (Marseilles to Algiers is one day's journey) and the fact that the Algerian climate allows the staple French industry, wine growing, to be prosecuted with success, has made this the most valuable and prosperous of all the over-

Algeria.

seas possessions of France, and it has attracted the greatest number of French colonists, over half a million. There is also a large Spanish population, besides some Italians. The native people include Berbers and Kabyles, the majority of whom are agriculturists, besides Arabs and Tuaregs in the southern region of deserts and oases. All these people are Mohammedans, and there are also a considerable number of Jews in the towns.

Position, Climate and General Physical Conditions.—Algeria lies on the north coast of Africa and on the southern shore of the Mediterranean, opposite to France. It extends roughly between latitudes 30° and 37° N., and longitudes 2° W. and 8° E. of Greenwich. The hill and mountain ranges run parallel to the coast, i.e. from west

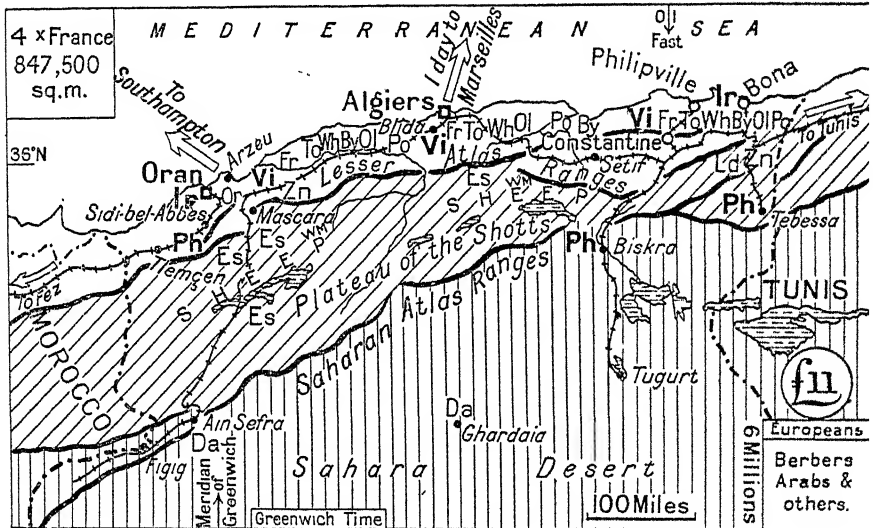


FIG. 3.—ALGERIA.

to east, and in the coastal belt there is a series of fertile valleys and small plains lying between the sea and the Lesser Atlas, which is known as the Tell. This region has the typical Mediterranean climate—warm moist winters, hot dry summers—and is the principal agricultural area and the home of the European colonists. The Tell is watered by permanent rivers. Behind the Little Atlas range is a high plateau, with much lighter rainfall, and greater extremes of temperature, characterised by a number of irregular, shallow, saline lakes, the Shotts, from which it takes its name. The inner margin of this plateau is formed by the Saharan Atlas, which drops to the practically rainless and extremely hot Sahara desert.

In the Tell, the hill and mountain slopes are clothed with cork and holm oak, myrtles, tree heaths and cedars, and with such herbs as lavender and rosemary, a vegetation similar to that of the south of Spain and Italy. The arid Plateau of the Shotts is clothed with alfa or esparto grass, varied with wormwood, dwarf-palms, and other small shrubs, and desert-grass on the sand-dunes. In the gorges of the Saharan Atlas a few trees—evergreen oak, juniper and stone-pine appear again, while in the desert itself

Algeria.

there are rare tussocks of thorny and succulent plants, and deep-rooted shrubs with drought-resisting powers. Around springs, wells, and wadies are the oases, characterised by great groves of date-palms.

Human and Economic Conditions.—The chief source of wealth of the European and native cultivators of the Tell is the vineyards, about 180 million gallons of **wine** being produced, which are sent to France for blending with the French wines. Next in importance are the cereal crops, **wheat** (both hard and soft) and **barley**, grown in winter and harvested in early summer. They feed the local population and provide a considerable surplus for export, which was of great value to France during the War. Owing to the southern position of Algeria, and the excellent transport facilities, a large trade has developed in early vegetables, notably **potatoes** (crop 80,000–100,000 tons), besides tomatoes, peas, beans, asparagus, and so forth. The climate is also admirably suited to the growth of fruits, the exports of **figs** and **mandarin oranges** being especially important. The olive also flourishes as in Southern Spain and Italy, and large supplies of **olive oil** are sent to the soap-works and sardine-canneries of Marseilles. Another staple crop of the Tell is **tobacco**, which supplies a number of large cigarette and cigar factories in Algiers and Oran. American, West Indian and South American tobaccos are imported for blending, and there is a considerable export of the products, besides a supply for the big local market.

On the hills and mountains, and especially on the plateau, pastoral industries are extensively carried on. There are in the country about 7 million **sheep** and nearly 3 million **goats**, besides over 1 million horned cattle. Live sheep form a very considerable export, so that wool and sheep-skins are of less importance than would otherwise be the case. Enormous numbers of *goat-skins* are, however, available for export. A refrigerating plant for mutton has been established near Algiers.

There are fisheries for sardines, anchovies, tunny and other Mediterranean *fish*, worth about £ $\frac{1}{4}$ million annually; also *sponges* and *coral*.

In the Saharan oases—Figig, Ain Sefra, Ghardaia, Touggourt and others—**dates** are the money crop and form an important article of export; *camels* are reared for local use.

Cork is obtained from the forests of the Tell, and *esparto grass* (for paper-pulp) is gathered on the plateau of the Shotts, especially behind Oran.

The *mineral* deposits of Algeria are very important, although labour and transport difficulties materially reduced the output during the War, and conditions were only slowly restored to normal. Of greatest value are the **iron ores**, found west of Oran and near the Tunis frontier, and yielding 1½ to 2 million tons annually. Next in importance are the enormous deposits of rock **phosphates** in the arid interior (annual yield $\frac{3}{4}$ million tons), which are converted into superphosphates at factories near Oran, Algiers and Bona. Nearly equal in value to the phosphates are the **zinc** and **lead** ores, which occur in the inner margin of the Tell, principally behind Bona, and there is, besides, a fair output of **antimony**. Yet another mineral is *barytes*.

Trade Relations.—Algeria has a well-developed railway system, running from west to east through the Tell, with branches to the principal sea-ports, and to the phosphate mines and chief oases of the interior. Before the War from 80 or 90 per cent. of the imports into Algeria came from or through France, while between 60 and 70 per cent. of the exports went into France.

Anglo-Egyptian Sudan.

The shortage of manufactured goods and of food-stuffs in the mother country during the war years reversed these percentages, so that the United Kingdom, United States and Spain were able to improve their respective positions temporarily in Algerian markets. British exports to the country reached nearly £4 millions in 1920, as against under one million in 1914, and now average over £2 million. They include coal and machinery, besides some cotton goods, the return trade being in iron ore, esparto grass, zinc and lead concentrates, and phosphates. Cotton goods, clothing and linen make up the largest total of imported goods, and are supplied by France, Italy and Spain. Motor-cars are in good demand, the roads being excellent, and are practically all of French manufacture, but the United States supplies some agricultural machinery, including motor-tractors. Coffee and sugar are the chief imported food-stuffs, coming either direct from Brazil and the West Indies, or through the United States, or through France.

Algeria is a very prosperous country, and the agriculturists of the Tell require all the classes of manufactured goods that Great Britain can supply. France now supplies three-quarters of the imported manufactures.

Both at Algiers and at Oran there are excellent harbours, accommodating the largest vessels. The latter is the nearest port for Britain. Air communication is maintained with Morocco and Spain, as well as with Marseilles.

General Information.—The money, weights and measures are as in France, the unit of money being the franc, of which 124.21 francs = £1 sterling. The metric system is employed. The Bank of Algeria issues notes, and there are several agricultural co-operative banks in operation. Barclays Bank (France), has branches in Algiers and Oran. Algeria has an important and lucrative tourist industry. There are daily sailings between Marseilles and Algiers carrying mails, the time from London being 3-4 days or 1½ days by air-mail. There is a British Consul-General at Algiers, and Vice-Consuls at Arzeu, Bona, Bougie, Montaganem and Oran, all of which towns are seaports.

ANGLO-EGYPTIAN SUDAN

Area and Population.—The Anglo-Egyptian Sudan is administered by a Governor-General who is a British officer, appointed by the Egyptian Government with the assent of Great Britain. It is divided into fifteen provinces, of which the Governors are either British officers or British civil officials in the Egyptian Service. The area of the country is rather over 1 million square miles (about the area of British South Africa), and has a native population estimated at about 6½ millions. The foreign trade has risen from £3¼ millions in 1913 to 12¾ millions in 1928, i.e. it is nearly £2 a head. The undeveloped resources of the country are very great, and the Government makes every effort to foster industry. The chief urban centres are grouped together at the junction of the Blue and White Niles: they are Omdurman (the old Dervish capital), pop. 78,000; Khartum, the administrative centre, pop. 30,000; and North Khartum, pop. 14,000. The people of the northern Sudan are Arabs, while those to the south are negroes (Shilluks, Nuers, Dinkas), but in the Nile Valley itself there has been a great intermingling of peoples. A beginning has been made

Anglo-Egyptian Sudan.

roughly from 10° to 15° N.—the rainy season lasts between four and six months, but the total fall is from 10 to 20 in. only. North of Khartum, rain may fall during the summer months, but the total is under 10 in., i.e. the climate is that of the desert, and agriculture without irrigation is impossible. The rains generally occur with south-westerly monsoon winds, which blow towards Abyssinia, and hence the rainfall is slightly higher towards the margins of the latter country. In the dry season the north-east trade wind prevails.

General Physical Conditions.—The essential feature of the Anglo-Egyptian Sudan is the Nile. Leaving Uganda at Nimule this river flows through a level swampy plain as the Bahr el Jebel, and in latitude 9° N., receives from the west the Bahr el Ghazal, which flows sluggishly through similar country, so that this section of the river is liable to be obstructed by masses of floating vegetation (sudd) torn up during flood time. The Bahr el Ghazal country is fairly well watered and consequently is wooded, and has wild rubber vines. Beyond the El Ghazal confluence, the Nile receives no more tributaries from the west, the country being too dry. It is clothed with scrub, made up mainly of thorny shrubs, and these include many that bear gums, for which this district (Kordofan and Darfur) is noted. On the east of the Nile valley the well-watered Abyssinian highlands send down the summer flood waters through the Sobat, the Blue Nile and the Atbara. Of these the Blue Nile is the most important, and at its junction with the White Nile stand Omdurman and Khartum, while in the angle between the rivers is the fertile plain known as the Gezira, which has recently been put under irrigation by the construction of the Makwar Dam on the Blue Nile. Broadly speaking, the country as far north as Khartum is of the savannah type, merging into woodland in the Bahr el Ghazal and towards the Abyssinian highlands, and passing over into scrubland in Kordofan. North of Khartum, cultivation is only possible in the narrow Nile valley itself, the country on either hand becoming increasingly arid until it merges into the Sahara. Westwards the low plateau of the Sudan rises to the Tibesti highlands, on the frontier of French Sahara, while eastwards, it rises to the broken uplands of the Nubian Desert, bordering the Red Sea. In the south of the Nubian Desert the river Baraka, flowing northwards from the Abyssinian highland, provides water for cultivation in the Tokar district (Red Sea Province).

Human and Economic Conditions.—The Anglo-Egyptian Sudan is essentially a pastoral country, the savannah regions and open wooded regions of the south being suitable for horned cattle, while the scrublands and poorer grasslands support large numbers of sheep and goats, and the nomad desert tribes rear camels. Since Egypt rears cattle mainly for draught purposes, there exists an immediate market for animals for meat, and the trade has therefore expanded considerably. A maximum of 39,000 cattle and 209,000 sheep and goats, worth well over a million sterling, were exported in 1918. For the continued growth of this industry it will be necessary to control the cattle-diseases endemic in the rainy southern regions, and to provide additional wells in the regions of uncertain rainfall farther north, besides improving the means of communication, so that cattle from regions at present inaccessible can be marketed. El Obeid, the rail-head in Kordofan, and Omdurman, are important stock markets. Hides and skins

Anglo-Egyptian Sudan.

are naturally also important articles of trade, with a value of nearly £ $\frac{1}{2}$ million. A well-organised Veterinary Department is at work.

Wild elephants roam the savannahs, and consequently there is a steady export of *ivory*. The most important wild product of the country is **gum arabic**, coming mainly from the semi-arid province of Kordofan, but also growing in Darfur, and in the White Nile and other provinces, where climate conditions are similar. The quantity exported is about 20,000 tons, worth over £ $\frac{1}{2}$ million.

Agriculture is carried on in the south without irrigation, while in the centre and north the peasants depend mainly on the natural floods of the Nile and of the torrents (Khors) from the Abyssinian highlands. Of the latter the most important are the Khor Baraka (partly under control), which waters the Tokar region, and the Khor Gash, which spreads out into a delta at the foot of the mountains by Kassala. The most important irrigation scheme, that for watering the Gezira Plain from the Blue Nile, has recently been completed, and a great increase in agricultural output has taken place.

The most important crop is **dura** (millet), which is the staple food of the people, and in good years yields a surplus for export (maximum value £672,000 in 1917). Secondary crops are *ground-nuts*, *sesame*, and (in the oases) *dates*. Of greater economic importance is, however, the **cotton** crop. This is grown mainly in the Tokar district, in the Gezira, and in the Nile valley. The output in 1928 exceeded 100,000 bales of 400 lb., with a value of £E.3 $\frac{1}{2}$ million. The cotton fetches a high price, and insect pests appear to be absent.

The forests which line the river banks in the south contain valuable *timber* trees, and also *tanning* materials; there is, besides, wild *rubber* in Bahr el Ghazal Province. Experiment has shown that rubber, manioc (*tapioca*), tobacco, and coffee, are crops that would succeed in the rain-watered region. A *salt* field near Port Sudan supplies the country and yields a surplus for export.

Trade Relations.—Since there is communication both by rail and river between the Anglo-Egyptian Sudan and Egypt, import trade naturally follows this direction. The bulk of the exports go through the well-equipped Port Sudan in the Red Sea. Great Britain takes gum, cotton, ivory, hides and skins (the gum going formerly to Germany), the United States takes gum, hides and skins, while France also takes some gum. The arid countries near by, e.g. Eritrea and Arabia, normally take the surplus grain and some cattle (Suakin being the port for Arabia, used also for pilgrim traffic). During the War, however, grain was diverted to Egypt. There is some trade with Abyssinia through Gambela (leased territory), chiefly in coffee, which is exchanged for salt. The greatest import is of cotton fabrics, largely from Great Britain and from Japan, or by re-export from Egypt, but also from India, which country also supplies sacks and tea. Sugar comes from Egypt, biscuits and confectionery from South Africa, while flour and provisions for the Europeans and town dwellers, tobacco and cigarettes, domestic utensils, hardware, tools and implements, glassware, bazaar goods, and so on, for native traffic, come mainly from Great Britain, through Egyptian merchant houses, and to a small extent from Italy and Japan. Native purchasing power is steadily increasing.

Internal communications are maintained by a fleet of Government passenger and cargo steamers, which ply over the Nile and its navigable

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tributaries from the Egyptian frontier to Rejaf, 90 miles from the Uganda frontier. The railways are also Government owned. The head-quarters is at Atbara Junction, whence lines run northward to the Egyptian frontier, southward to Khartum and El Obeid, and eastward to Port Sudan. From Haiya on the Port Sudan line a branch runs to Kassala, and thence to Gedaref, whence it will be continued to Makwar.

General Information.—Language, money, weights and measures are as in Egypt. The English sovereign is worth $97\frac{1}{2}$ piastres. The National Bank of Egypt and Barclays Bank have branches at Khartum and other leading towns. Mails reach Khartum in about twelve days.

ANGOLA

Area and Population.—The Portuguese Colony of Angola (Portuguese West Africa) has an area of nearly half a million square miles (larger than the Union of South Africa), and a native population estimated at about 5 millions. It is administered by a High Commissioner, residing at the principal town and seaport, Sao Paulo de Loanda (population 17,000–18,000). Considering its vast area, the country is but little developed, the total trade being worth from £4–5 millions, a figure which is, however, double that of a decade ago. The number of Europeans (largely officials) is only a few thousands.

Position and General Conditions.—Angola stretches along the west coast of tropical Africa from 5° to 17° S., i.e. it is in very similar latitudes to Peru, and the climates of the coastal belts of the two countries are alike in being but scantily watered, and increasingly so towards the south. This is due to the fact that the winds are usually off shore, or parallel to the shore, while owing to a cool ocean current in each case, such winds as come from the sea have a relatively low moisture content. The heat is great, but not excessive, and in both countries the interior is elevated. Here, however, the resemblance ceases, for whereas Peru rises to the Andes Mountains, Angola rises to a plateau, varying from 3,000 to 6,000 ft. in elevation, and having a sufficient summer rainfall to support a rich savannah vegetation. The woodlands are of deciduous drought-resisting trees, and true forests only occur on the steeper escarpments, in some of the valleys, and in the wetter coast belt north of 9° S.

The plateau culminates in the Bihé highlands behind Benguela, whence a ridge runs inland, throwing off the drainage to the north and south. The Kwanza, flowing northward, turns and enters the Atlantic near Loanda: the Kunene, flowing southwards, also turns and enters the Atlantic. The interior, however, drains northward to the Congo, and southward to the Zambesi or to the Bechuanaland swamps.

As in Peru, wherever water is available on the coastal belt **sugar** and **cotton** do well, and the cultivation of both is increasing. Of more importance are the **coffee** plantations of the more elevated regions, e.g. behind Ambriz, where the conditions resemble those of British East Africa. **Maize** (native grown) is increasingly exported. **Tobacco** is grown and manufactured for local consumption, and in the most northerly (and wettest) region, the Cabinda enclave, which is isolated by a strip of Belgian territory

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at the mouth of the Congo, **cacao** is grown, and **palm oil** collected. Some wild *rubber* and *wax* are collected, and Ceara rubber has been planted in the Loanda district. The natives of the interior rear cattle and practise a simple agriculture, *manioc* and *ground-nuts* being staple food-stuffs, and the *cattle-rearing* industry is capable of development as in Rhodesia. The *coco-nut* industry is neglected. There is considerable mineral wealth in the Colony, and with the completion of the railways and

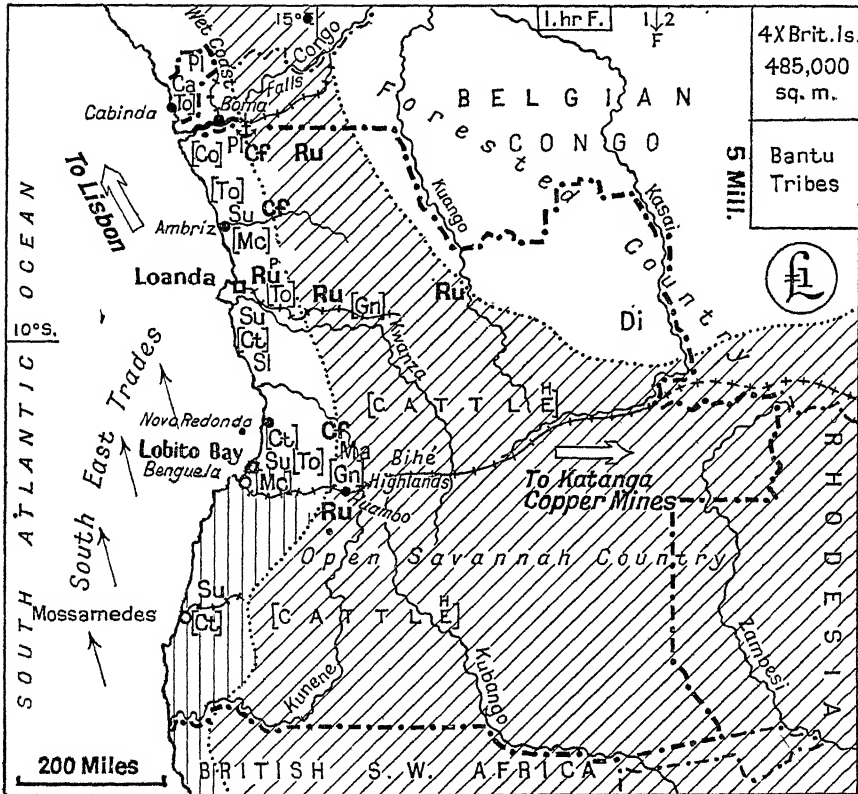


FIG. 5.—ANGOLA.

the organisation of labour, there should be great developments. At present the only exploitation is of **salt** from the coast marshes, which is used in *fish preserving* or sent inland, and of *diamonds* recently discovered in the Lunda district. British, American and Portuguese companies hold concessions for developing *oil*, and a considerable output is looked for. A line runs inland from Loanda, which has a good harbour, and this is open for 375 miles. A second line, the Trans-African Railway, runs from Lobito Bay, an excellent deep natural harbour close to Benguela, across the lofty and healthy Bihé plateau, along the Congo-Zambesi divide, and will join the Belgian Congo Railway in the Katanga copper-mining district. The trade is practically

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all with Portugal and is carried in Portuguese vessels, but includes a high proportion of British goods.

The unit of currency is the *angolar*, but at present, as in Portugal, paper *escudos*, worth $2\frac{1}{2}d.$, are in circulation. The principal banking establishment is the Banco de Angola, a subsidiary of the Banco Nacional Ultramarino of Portugal, with London offices. There is cable communication with E., W. and S. Africa, S. Thomé, and (indirectly) with Europe. There is a British Vice-Consul at Lobito Bay.

ANNAM

See **French Indo-China**, p. 190.

ANTIGUA

See **British West Indies (Leeward Islands)**, p. 89.

ARABIA

Area and Population.—The peninsula of Arabia is broken up into a number of Arab States, among which the Kingdom of Hejaz and Nejd now has the paramount position. The Imamate of Yemen, in the south-west, and the Sultanate of Oman in the south-east, are next in importance, while the tribes of the intervening Hadramaut are independent, and the small Sultanate of Koweit is subsidized by the British Government. The total area is estimated at 1·2 million square miles, or nearly ten times that of the British Isles, and the population is estimated at $6\frac{1}{2}$ millions. Of these nearly 4 millions are in Hejaz and Nejd, and 2 millions in Yemen. The economic importance of this thinly peopled country, of which half is desert, and but a small fraction really fertile, is obviously slight. It is, however, of political importance, since the Red Sea and Bagdad routes to India skirt it on either side, and the British Bahrain Islands and Kuria Muria Islands, as well as the great coaling station of Aden, lie on its margins. The most important cities are Mecca (70,000 inhabitants) and Medina (15,000), the Holy Cities of Islam, which are in Hejaz: they are reached by the railway from Aleppo to Medina, or by the Red Sea port of Jiddah (30,000). Hodeida (40,000) is the chief port of Yemen, and Sana the capital. Muskat is the chief port and capital of Oman. The capital of Hejaz and Nejd is the oasis city of Riyadh. Although the bulk of the people are Arabs (i.e. Semitic), yet there are many negroes in the towns and on the coasts, besides British Indians in the ports, the result of the age-old native traffic between the Arabian, Indian and African shores.

Position, Climate and General Conditions.—Arabia lies between latitudes $12\frac{1}{2}^{\circ}N.$, and $35^{\circ}N.$, i.e. it is crossed by the Tropic of Cancer. Situated as it is between the great land masses of Asia and Africa, and shut off from the Mediterranean Sea by the highlands of Syria, the main climatic characteristic is almost perpetual rainlessness. The only exception is the lofty south-western buttress of Yemen, which (except on the coast strip) receives heavy summer monsoon rains from a south-west wind. These rains decrease towards the north, through Asir to Hejaz, but

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a certain amount of water makes its way inland by wadis or underground, and supplies the oases. The chief oasis region is the Nejd, which separates the two great desert regions—the Syrian Desert and Nefud in the north, and the Great Arabian or Sandy Desert in the south, which cover half the peninsula. In Yemen, the Nejd, Asir and Hejaz there is light pasture, and some cultivation. Similarly Koweit and El Hasa, on the east, have underground water, while Oman, like Yemen, is very lofty, and its high summits condense some rainfall, so that there are streams allowing of irrigation at lower levels. **Date** groves are characteristic of all the sufficiently well-watered tracts and oases of the peninsula, and the natural rainfall of Yemen allows the famous “Mocha” **coffee** to be grown on the terraced hillsides, besides wheat, barley, vegetables and orchard fruits, such as apricots and figs. Wheat, millets and barley are grown throughout the western margins, maize in the Nejd and in Oman. These agricultural products grown by the settled peasantry are bartered with the nomad Arabs for wool, leather, milk and for the *camels*, which are the chief animals used for drawing water and for transport. A few small cattle, i.e. sheep and goats, are kept for milk, meat, wool and leather. The Arabs almost universally wear cotton clothing, which is the chief article of import. Coffee, sugar and tobacco are their only luxuries, and these are also imported, the coffee of Yemen not being sufficient. Some grain, too, is imported from India into the eastern States. Dates, camels, wool, clarified butter, hides, *salt*, and a little *gum* from the south of the peninsula, besides *pearls* from the Persian Gulf, are the only commodities available for export, and the total trade is, very small, probably under £1 a head. The Bahrain Islands and Aden serve as entrepôts for East and West Arabia respectively, and there is much coasting traffic in native vessels. Imported goods are mainly of Indian origin, or are re-exports from Bombay, and British Indians form a large proportion of the merchant class.

The British rupee is the accepted currency of the ports, but many other coins are also in use. There are banking facilities only at Jiddah. There are British Consuls at Muskat and Jiddah and a Political Agent at Koweit, which was once considered as a likely terminus of the Bagdad Railway.

ARGENTINE REPUBLIC

Area and Population.—The Argentine Republic, with an area of rather more than a million square miles, and a population of 10 millions, has rather less than a third the area and a quarter the population of Brazil. But whereas the foreign trade of the latter country amounts to only about £5 per head annually, that of Argentina has reached the figure of £37 (total, £370 millions), and that in addition to a very active internal trade, determined by the wide variety of resources in different parts of the country. This country is thus by far the most important in South America from an economic standpoint, the reason being that it enjoys a combination of natural advantages unequalled elsewhere. The federal capital, Buenos Aires, has over 2½ million inhabitants, i.e. a million more than Rio, and there are two great inland cities: Rosario, a port on the Parana, with over 250,000 people, and Cordoba with over 150,000. La Plata, a provincial capital, and a sea-port, has 150,000 people, and there are besides fourteen

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towns with more than 20,000 inhabitants. Only two of the latter are sea-ports, Mar del Plata (also a pleasure resort) and Bahia Blanca, for of all the South American Republics Argentina is that in which it has proved easiest to open up the interior. The male population outnumbers the female by more than $\frac{1}{2}$ million, in consequence of the heavy male immigration.

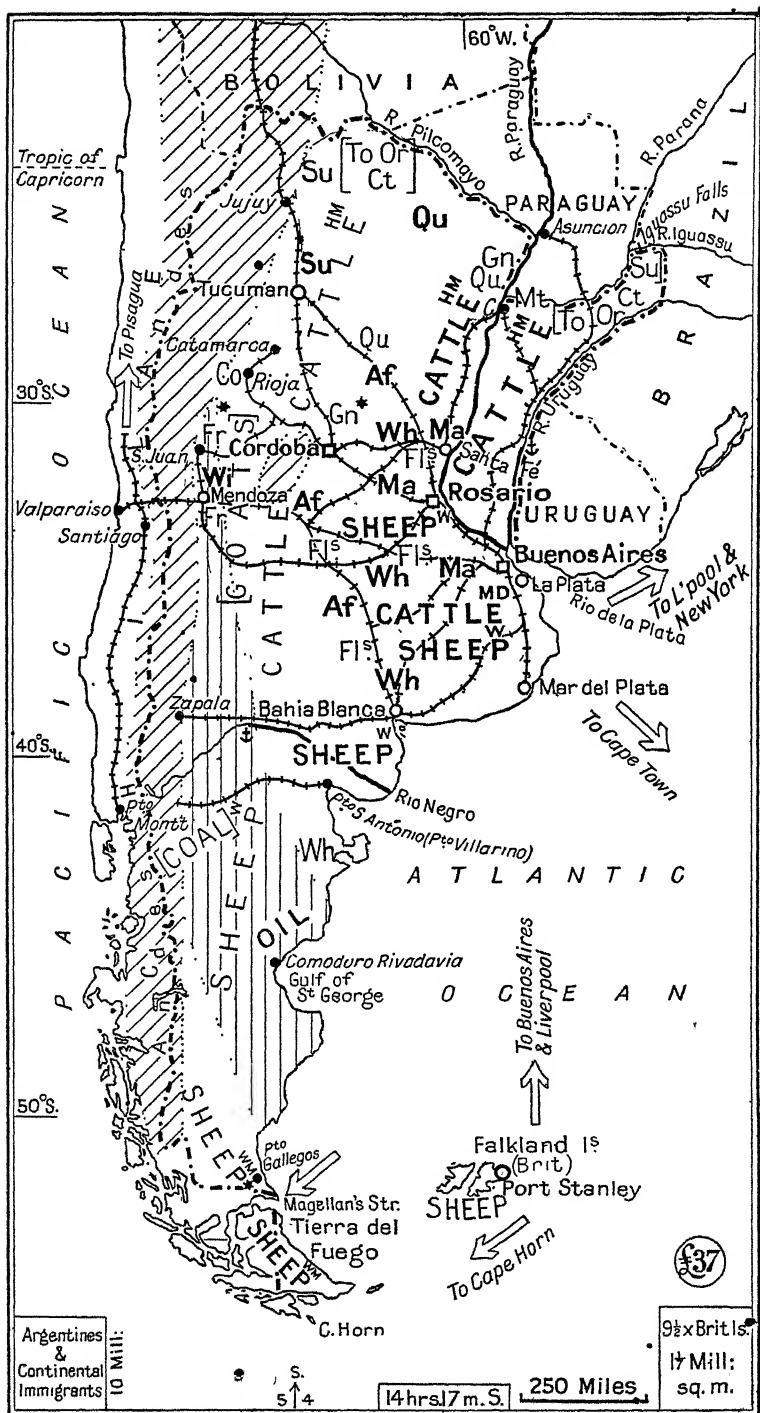
Position and Climate.—The Argentine Republic faces the Old World, stretching from the high Andean ridges down to the South Atlantic Ocean. The extreme north of the country lies north of the Tropic of Capricorn, about the same distance from the Equator as Calcutta in the northern hemisphere. The extreme south lies in latitude 55° S., that is to say as far from the equator as Newcastle (Eng.). This great extent of the country from north to south gives an exceptionally wide range of climates and products, both animal and vegetable, with the result that whereas a "bad year," due to bad weather, drought, locusts, disturbed markets, or what not, may affect one or two staples, it is counterbalanced by a normal or good year enjoyed by other groups of products, so that the prosperity of the country as a whole is usually unimpaired.

Besides this, the fact that the greater part of the country lies in the warm temperate zone, the pleasantest in the world, and also faces the Atlantic, has given it a very large immigrant population from Europe. Italians are the most numerous, accounting for one-third (half during the period 1857–1915) of the total number of foreign colonists, next come the Spaniards, followed by Germans and Austrians, French, Russians, Levantines, Britons and Swiss in the order named. The importance of a particular national group of immigrants cannot, however, be judged from numbers alone. The Italians, (immigrant) Spaniards, and Russians are for the most part illiterate peasants, belonging to the labouring class, while the French, Germans and British are well educated and usually possessed of some capital, so that they take their place as landowners, or as members of the business community.

These people, of so many different nationalities, with their different aptitudes, ideas and traditions, have played their part also, in establishing that diversity of productions which is the strength of the country. Whereas a few generations ago, the colonial-born Spanish landed proprietors, living on their great estancias, were content to live like the gauchos, mainly upon meat, the immigrants demanded the varied diet to which they were accustomed. Thus French settlers take a prominent part in viticulture, Italians engage in the intensive cultivation of maize, Basques from the Pyrenees make butter and cheese, while Syrians engage in petty trade, and Britons have improved the half-wild cattle by the introduction of pedigree stock for which their country is famous, and are prominent as engineers.

Furthermore, both the peoples of the Mediterranean lands, and the Russians from the Ukraine, were accustomed to farming in regions of marked seasonal drought, and somewhat low annual rainfall. Hence the farming of the interior provinces of the Argentine, which were by many people considered to be too arid for crops, has presented no insuperable difficulty.

The rainfall in the Argentine diminishes from north to south, and also from the east coast towards the interior. Hence there is a belt of country at the foot of the Andes, narrow at first, but broadening southwards, which has a very low rainfall, and to the south of the Rio Colorado, in Patagonia, the whole country, from mountain to sea, has under ten inches a year. In



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the northern and central provinces the winds are variable, and include a fair average of moist winds from the ocean, while sultry weather is often broken up by the *pampero*, a cold, stormy, south-westerly wind. In the southern provinces, westerly winds are the rule, and these discharge their moisture on the Chilean Andes, leaving Patagonia practically a desert save in the extreme south, where the mountain barrier is lower and more broken.

In the Patagonian region the summers are cool, and the winters decidedly cold, for the land, though level, lies at a considerable elevation. Further north, the greatest summer heat is experienced in the interior provinces, which are as hot as North Africa, while round about the Plate Estuary, the summers resemble those of southern France, and the winters are quite warm, like those, for example, of Algiers.

Physical Conditions. — Broadly speaking, the Argentine Republic is a great plain, drained by the main stream of the lower Parana, which runs south, and by its western tributaries, the Vermejo and Salado, which have very little volume in the dry season. The waters of the Pilcomayo, Paraguay and Parana separate Argentina from the Paraguay Republic, and those of the Uruguay from the Republic of the same name, to the east. All these rivers combine to enter the Plate Estuary, the only great estuarine inlet in the whole of South America, and a natural asset of prime importance to the country. To the south of the Plate River system lie the high plains of Patagonia, crossed by the Colorado, Negro and Chubut rivers. The western frontier of the Republic marches with Chile, and lies along the high Andean ridge, so that a strip of mountain country, from 50 to 100 miles wide, together with a belt of foothills, is included in Argentina. The only other high mountains are the Sierra do Cordoba, a series of parallel chains, some 3,000 to 6,000 feet high, stretching from north to south through the province of Cordoba, some 300 miles east of the Andes proper.

The characteristic vegetation of the Argentine is the treeless grassland, on the level pampas, which is seen at its best in the province of Buenos Aires. It extends westward into La Pampa and Cordoba, where it is somewhat less luxuriant, and northwards through Santa Fé, Entre Rios, Corrientes and Misiones. In this direction, especially in the north of the Misiones Territory, the more abundant rainfall and greater heat lead to tree growth, and the grassland is replaced by evergreen forests, in which *yerba maté* grows. Towards the north-west, where it is even hotter, and the winter drought is very marked, the Gran Chaco type of vegetation replaces the pampa. It is what may be termed a wooded savannah: a mixture of campos as in Brazil, with palms, hard-wood forests (quebracho, algarrobo, cedar) and swamp pastures. Towards the west and south of the pampas, where it is drier and cooler, the continuous carpet of grasses and herbs thins out to tufts of coarse grass, mingled with thorny shrubs, cactus and deep-rooted trees of small stature such as mimosa and algarrobo. In many places the dry soil is impregnated with nitrates, and shallow brackish lagoons (salinas) occur. Yet wherever, owing to the impervious nature of the sub-soil, or owing to the proximity of a river, the surface soil is kept humid, the grasses and tree growth become more abundant. The slopes and foot-hills of the Andes are forested, especially in Patagonia, where there are extensive woods of araucaria, oak and pine. All the timber of Argentina, however, lies in the regions most remote from the Plate Estuary, the great centre of activity, and hence the forests are, in the main, untouched.

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The disadvantage of lack of timber on the pampas is more than balanced by the ease of railway construction, where obstacles are so few. Mountain and forest must be counted as among the most serious checks on enterprise elsewhere in Latin America.

Human and Economic Conditions.—As far as the European world is concerned, Argentina stands for two staples of almost universal consumption, *meat* and *wheat*. In this it resembles the Middle West of the United States and Canada, with this difference, that instead of being in the middle of a continent, it is on the sea-board, a very obvious advantage. The days are past when the semi-wild herds of cattle roamed the pampas, to be rounded up occasionally and slaughtered for their horns, hides and tallow. The land is now fenced, and a large proportion is under the plough, although, paradoxically, an increase in the weight and number of the herds has gone hand in hand with the restriction of natural pasturage. This is, of course, because fodder crops and grain are fed to the stock, and because the individual beasts are heavier owing to the crossing of the native breeds with pedigree stocks, largely from Britain. Thus, in addition to the wheat, maize and linseed shipped to Europe as such, large quantities arrive under the guise of beef or mutton.

The number of animals varies widely according to the season (e.g. whether lambs and calves are reckoned), the state of the market, and the cost of foodstuffs, but a recent estimate gave about 30 million **sheep**, 37 million **cattle**, 9 million *horses*, 5 million *goats* and $7\frac{1}{2}$ million *pigs*. The ratio of these numbers to the 10 million head of population is worth noticing. Great Britain, with 44 million people, has about $23\frac{1}{2}$ million sheep, 7 million head of cattle, and 3 million pigs.

The area now under cultivation is three times what it was in 1900, yet it is probably not a quarter of that which might be tilled, and experience has shown that even land pronounced by experts to be sterile has later proved richly productive. Moreover, although there are already important irrigation works in the country, as, for example, the colossal St. Roque dam, which imprisons enough water from the Sierra do Cordoba to fertilise 300,000 acres, there are abundant further opportunities in this direction.

At present the area ploughed is about 30 per cent. greater than that cultivated in the United Kingdom, and of the total, about one-half is under **wheat**. The acreage under **maize** is only about half as great, and in many districts this cereal is subsidiary to **alfalfa** (lucerne). The alfalfa is a very deep-rooted clover which can flourish in spite of prolonged drought. It grows so rapidly that stock can be pastured on it all the year round, or it can be cut for hay again and again in the same season. Grown in rotation it serves the useful function of restoring nitrogen to the soil. Next to wheat, maize and alfalfa, **linseed** (from flax) is important, closely followed by oats.

Comparing the stock and crops figures with those of the United States, there is a great discrepancy as regards pigs. The States have 60 millions of these animals, although the acreage under maize, the chief fattening crop, is only twelve times that in the Argentine. The number of pigs in the latter country has, however, fluctuated greatly in the last decade, and the industry is doubtless one that will advance with the development of *dairy-ing*, which has been very rapid in the more densely settled districts. The Danish, Swiss and Scandinavian elements in the population have the requisite traditions of care and gentleness towards animals which is necessary

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for rearing good milch cows, but this is only one industry among many which waits upon an increased supply of labour before its great potentialities can be realised. Already, however, the number of milch cows is estimated at 3 million (U.S.A. 23 million), and whereas in the pre-war period an annual import of 5 million kilos of cheese was necessary, the average export since 1917 has been nearly the same figure, and the import is negligible. The *butter* export, too, of 1918, was six times that of 1910, and is now worth several millions sterling. *Casein* is also exported in quantity.

The 5 million goats by no means represent the total that might be profitably pastured in the arid lands, and on the Andes. It is very desirable, too, that the breed should be improved by the introduction of good milking and Angora strains.

The development of the grain and cattle industries has naturally hinged upon the development of transport facilities, and apart from the Parana and Uruguay rivers, transport is necessarily by rail. The system focuses on Buenos Aires, the great Plate River port. If an arc of a circle be drawn with Buenos Aires as centre and a radius of 400 miles, its terminals being on the coast (R. Negro), and on the right (west) bank of the Parana respectively, it will be found to enclose the area characterised by the closest network of railways, the greatest density of population, and the greatest production of grain and stock. The units included within this radius are the Province of Buenos Aires, with the Federal District, the east of the territory of La Pampa, the province of Cordoba, and the southern part of Santa Fé.

Practically the whole of this area is a rich, level, grass-covered plain, with a rainfall of 20-30 in. Within it stands Rosario, the great grain port on the Parana, and Cordoba, these being the second and third cities in the Republic. It also includes La Plata and Santa Fé, the fourth and sixth cities in size, and Bahia Blanca, the great grain port of the more southerly cereal areas. Rosario is situated where the Parana alters its southern direction and turns ocean-ward. Hence it is at a point where traffic lines from the north-north-west and west must converge, in order to take the shortest route to the Atlantic.

The River Parana is practically unbridgeable, owing to its width, below the La Guayra falls in Paraguay, and hence the rich province of Entre Rios, which lies within the 400 mile radius, was until recently isolated from the main railway system and its development was retarded. The closeness of its railway network, and the density of its population, are hence less than its favourable position and climate would lead us to expect. The two rivers which embrace the province have formed the principal highways, and on their banks are the chief towns: Parana, the capital of Entre Rios (population 36,000), opposite Santa Fé, with Concordia (population 20,000), and Gualeguaychu (population 18,000), also on the same river. The establishment of a train ferry across the lower Parana at Ibicuy now gives the desired direct route to the Federal Capital. Ibicuy is also an important port for Entre Rios.

Although the whole of the area within 400 miles of Buenos Aires is mainly agricultural and stock-raising, the attention given to different crops and animals varies somewhat with the latitude. Broadly speaking, cattle and maize take a more prominent position in the hotter and wetter region north of the Plate Estuary, while wheat and sheep are better suited to the rather cooler and drier lands farther south. The province of Buenos Aires

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has over 40 per cent. of the total sheep in the whole Republic, while in La Pampa these animals are twelve times as numerous as horned cattle. In Santa Fé, on the other hand, there are two and a half times as many cattle as sheep.

Outside the 400 mile radius, there are two cities of great importance, Tucuman (population 91,000), the fifth in point of size in Argentina, and Mendoza (population 59,000), the seventh. Each is the capital of a province bearing the same name. Both cities stand at the foot of the Andes, both have direct railway routes to Buenos Aires, both are agricultural centres, and both depend for their prosperity upon a single staple. In the case of Tucuman, the more northerly, this is sugar; in the case of Mendoza, it is wine. The latitude of Tucuman is that of southern Queensland, the latitude of Mendoza is that of Cape Town.

Tucuman has three-quarters of the **sugar** refineries of the Republic, and French colonists play an important part in the industry. The heavy rains fall for a short season in summer only, and irrigation is practised in order to extend the cultivable area. Maize, cotton, rice and fruit are secondary crops, and more attention is being paid to these now that the sugar industry is progressing elsewhere, notably in the sub-tropical provinces of Jujuy and Salta, and in Misiones, which is very well watered. These regions, although on trunk railways, are, however, even more remote from the Plate River than Tucuman, which itself is 700 miles from Buenos Aires. Hence, although a record harvest ($\frac{1}{2}$ million tons) gives Argentina more sugar than she can consume, she is not likely to become a great exporter.

Round Mendoza, the great **wine** centre, irrigation is practised to a very great extent, the canals totalling 1,200 miles. The bulk of the grapes go to make *vin ordinaire*, since the growers cannot compete with France for the sale of superior bottled wines in Buenos Aires. Table grapes are also supplied. A secondary but very remunerative industry is orchard culture: apricots, nuts, olives, in fact all Mediterranean fruits, do well. Alfalfa is also grown, and cattle from the open ranges farther east are sent to Mendoza, to be fattened for the Chilean market. The Trans-Andine railway passes through Mendoza, en route for the Uspallata Pass and Valparaiso. The mountain section has a different gauge from that on either side, involving a double handling of goods. A moderate output of petroleum in the province of Mendoza is of value owing to the general shortage of fuel in the Argentine. The neighbouring province of San Juan has a considerable share in the wine industry, and dries muscat grapes for raisins.

Mention has been made of the sugar cultivation in the northern sub-tropical provinces. The great success of numbers of small plantations has shown that the same areas might grow *cotton*, *tobacco* and *oranges* on a large scale, were transport facilities and labour supply improved. **Ground nuts** (for oil), another easily grown crop, also do well in Jujuy, Misiones and Corrientes, and are even more important farther south, e.g. in the more densely populated province of Cordoba. At present the northern provinces and territories are important rather for their forest products than for their crops. Misiones produces **yerba maté**, while Formosa and Chaco, to the west of Paraguay, are exploited for **quebracho** wood. Not only are saw-mills numerous, turning out posts and sleepers, for which this hard wood is peculiarly suitable, but there are factories for the preparation of *quebracho extract*, sent abroad in very large quantities for tanning leather. Once

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the timber has been removed, good grass springs up, and cattle-rearing proves successful.

At present much sub-tropical produce (e.g. tobacco, oranges, yerba maté), which might be produced in the Argentine, is imported from Paraguay. The trade goes through the river port of Corrientes (30,000 inhabitants), standing near the junction of the Paraguay and Parana rivers, or by the recently completed direct rail route from Asuncion to Buenos Aires, via the train ferry at Posadas.

If there is abundant opportunity for immigration and development in the north, distant 800 miles from the Metropolis, so is there also in the territories to the west and to the south of the circle of rich and accessible lands. Patagonia, which includes the Territories of Neuquen, Rio Negro, Chubut and Santa Cruz, looks stony and sterile enough, when approached from the east coast; along the foot-hills of the Andes, however, is a rich region with lakes and mountain streams, forests and luxuriant pastures, which has great possibilities both for stock raising and temperate agriculture. The Andean passes are much lower towards the south, and many of the settlers are Chileans, but besides these and Argentines there are numbers of colonists from northern Europe. Railways through the mountains would put the regions in touch with the near-by Pacific, but at present single lines run to the Andes from the Atlantic: to Zapala in Neuquen from Bahia Blanca, and to the mountain lake Nahuel Huapi from Porto Villarino. It is some 70 miles south of this lake that an important discovery of good coal has been made, near Lake Epuyen.

In the extreme south of Patagonia and in Tierra del Fuego there is an important *sheep-rearing* region, the cold climate ensuring a good wool crop. The meat and wool is dealt with at the little ports of Gallegos, S. Julian and Deseado. The whole of Patagonia carries about 10 million sheep.

Meat packing in the Argentine has been brought to a high pitch of perfection, and there are numbers of huge establishments on the banks of the Parana and Plate rivers, notably at Buenos Aires and La Plata. In Santa Fé and elsewhere there are also *saladeros* for preparing jerked beef, for which inferior cattle are used, for the cattle tick is still endemic in the north.

Another widespread industry is *flour milling*, steam-power mills being found in most large towns of the cereal regions. *Tanneries*, too, are very numerous, and the abundant supply of leather has led to a flourishing *boot and shoe* industry, which not only supplies the local demand, but is seeking outside markets. Minor industries include saw-mills, sugar refineries, tobacco and cigarette factories, breweries and distilleries, preparation of flour products (vermicelli, biscuits, etc.), brick, tile and cement works, in fact all the types of enterprises usually associated with agricultural areas. There are also railway workshops, and a few foundries.

Apart from boots and shoes, there is no large production of any class of manufactured goods, and all textiles, iron, steel and metal goods, machinery, paper, earthenware and glass-ware, must come from abroad.

Mining industries are of no great importance, although the Argentine slopes of the Andes are probably as rich as the Chilean in copper, gold, silver, tin, borates, etc. A few mines are worked in San Juan, Catamarca, and Rioja, where a 20-mile cableway brings copper ore from the mountains, but more capital, labour, and transport facilities are all needed. As elsewhere in the Andes, ores must often be transported in small quantities on

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the backs of llamas and mules, and fuel for smelting is absent, and here, in addition, there is the long rail haul to the Atlantic.

The *coal* discovery, near Epuen (Patagonia), has been mentioned. Besides this the only considerable fuel supply is the *oil* region of Comodoro Rivadavia, where there is a steady and increasing output, amounting to 5 million barrels from State workings, and $3\frac{1}{2}$ million from private workings in 1927, but the life of individual wells appears to be short. There is a large refinery at La Plata.

The development of hydro-electric power from the Iguassu Falls on the Brazilian frontier is under consideration: an initial 150,000 H.P. could be supplied to Buenos Aires.

Trade Relations.—With a purchasing power of goods from abroad reaching £170 millions in 1927, Argentina is the most important South American market for manufactures. Textiles form the largest class, valued at £30–40 millions, and of these Great Britain supplies more than a quarter. Iron and steel and metal goods, including agricultural and other machinery, locomotives, motor cars, equipment for creameries, sugar centrals and the like, form a group of practically equal importance, and up to the outbreak of the European War, Great Britain filled about half of the orders. Imported foodstuffs and beverages are valued at £15 millions, and these include such items as coffee, cacao, rice, fish, oranges, yerba maté, choice European wines and spirits, preserves, sauces, canned goods and so forth. In normal times coal to the annual value of between £2 millions and £3 millions is imported from Great Britain, mainly for use on the railways, while there is an import of petroleum on an even larger scale from the United States. The latter country is, at present, the principal source of imports, owing to the falling off of imports from Germany and Belgium during the War, and to the high price of goods (especially coal, iron and steel) available from Great Britain, but Germany has now regained the third place, while both France and Italy send goods to the value of over £10 millions to the Argentine. Great Britain is the chief purchaser of Argentine grain, flour and chilled meat, and other items averaging over £3 millions each annually are wool, butter, quebracho extract and linseed. The United States, with its great boot and shoe trade, makes a large demand for hides, leather and quebracho extract, and the abnormal conditions created by the War made that country also a purchaser of meat and bread-stuffs, but the total of goods going to the United States is normally far below that coming into the United Kingdom from the Argentine, and even below that going to Germany.

There are first-class port facilities at Buenos Aires, Bahia Blanca and Rosario, the latter 210 miles up the Paraña and available for vessels drawing 21 ft. The railways are almost entirely under British management, and British capital is heavily invested in these and other public and private enterprises. Aerial routes have been organized from Buenos Aires to the distant cities in the north and west.

General Information.—The language spoken in Argentina is Spanish, although among the various colonists many different languages are used, and many foreign newspapers are published. There is no State religion, but Roman Catholicism is general. There is an ancient University at Córdoba, besides five others of modern foundation. Educational facilities are generally good, but over one-third of the population is illiterate. The

Australia,

official monetary unit is the *peso oro* (gold dollar): 5.04 dollars equalling 1 pound sterling. The actual currency is chiefly paper, and equals .44 gold. The metric system of weights and measures is in use. The Banco de la Nación Argentina is the principal Bank. The Anglo-South American Bank, the Bank of London and South America, and the Royal Bank of Canada have branches in Buenos Aires. Among the numerous foreign banks in Buenos Aires, the Yokohama Specie Bank may be noticed. Mails reach Buenos Aires in 17–23 days, or by air in 9 days. There is a British-Consul-General at Buenos Aires, a consul at Rosario, and vice-consuls at Bahia Blanca and ten other large towns. A Commercial Counsellor is attached to the British Legation in Buenos Aires. Argentina is a member of the League of Nations.

ARMENIA (U.S.S.R.)

See **Trans-Caucasia**, p. 424.

ASCENSION ISLAND

See **S. Helena**, p. 389.

ASHANTI

See **Gold Coast**, p. 214.

ASIA MINOR

See **Turkey**, p. 432.

ASSAM

See **India**, p. 255.

AUSTRALIA

Area and Population.—The Commonwealth of Australia includes the States of New South Wales, Tasmania, Western Australia, South Australia, Victoria and Queensland, each with separate Parliaments, together with North Australia, Central Australia, and the Federal Capital Territory (Canberra), which are under the direct administration of the Commonwealth. The total area—nearly 3 million square miles—is approximately that of the United States, yet in Australia there are only 6 million people, as against 112 millions in the States. It has been estimated, however, that 44 per cent. of the island continent is too arid to support a settled population, while 17 per cent., being tropical, is suited to close settlement by coloured or mixed races only. A further 28 per cent. can support but a sparse pastoral population, leaving only 11 per cent. suitable for close settlement as understood in the Old World. Even so, however, this 11 per cent. comprises an area nearly ten times that of Ireland, a country where at one time 8 millions lived on the

Australia.

produce of the soil, so that the present population of Australia is a mere fraction of the numbers it might support, leaving aside the undoubted future expansion of manufacturing industries and consequently of urban population in the Commonwealth.

The greater part of the population is settled on the south-east margin of the continent, and no less than $2\frac{3}{4}$ million people (46%) out of the total 6 million live in the six capital cities or their suburbs. The figures (including suburbs)

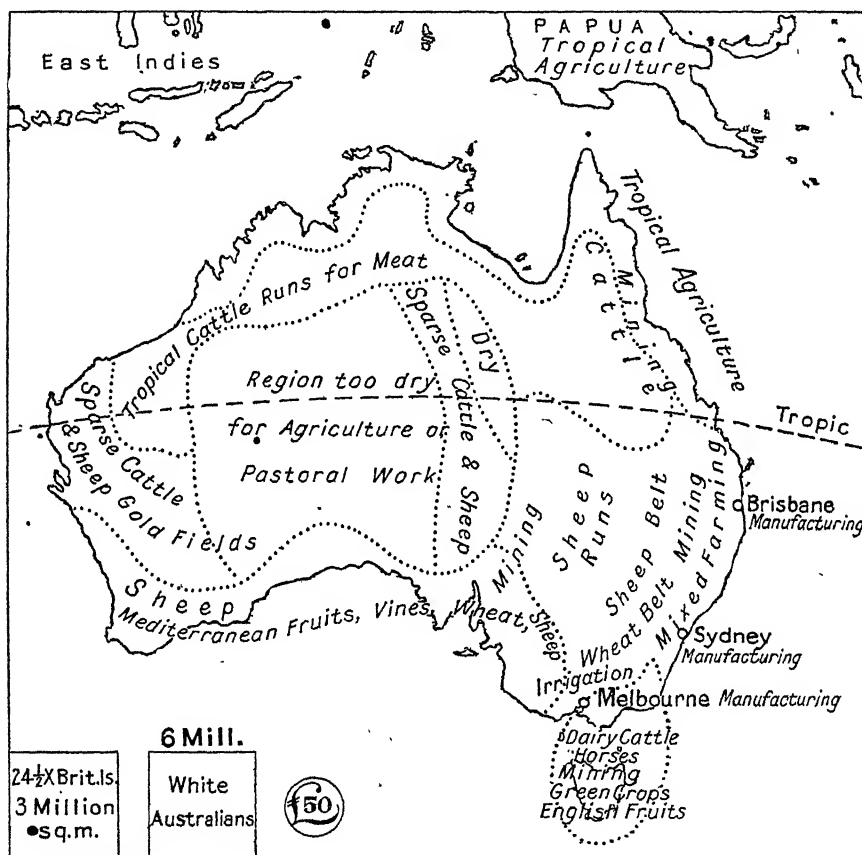


FIG. 7.—AUSTRALIA, NATURAL DIVISIONS.

at the end of 1926 were as follows : Sydney, 1,000,000 ; Melbourne, 944,000 ; Adelaide, 316,000 ; Brisbane, 274,000 ; Perth, 154,000 ; Hobart, 50,000. Of these six cities, Perth is exceptional, as it is in the south-west, and not in the favoured south-east region, but the south-west corner of the continent, although isolated, has also great climate advantages. The only other town in the Commonwealth with over 50,000 inhabitants is Newcastle, a port on the New South Wales coal-field.

The average foreign trade for the four years ending June 30, 1928, was £303 millions, or £50 per head of population. Of this 51 per cent. repre-

Australia.

sented exports as against 49 per cent. imports. There is, besides, a very large inter-State trade, since the variety of climates which Australia possesses allows of a great range of home-grown food products. Heavy buying by Australian merchants on the one hand, coupled with the slump in wool and metals on the other, led to an adverse balance in the year 1920-21 of £30 millions on a total trade of £295 millions, rectified in 1921-22.

Position and Climate.—Australia proper stretches from latitude 10° S. (corresponding to southern India in the opposite hemisphere) to latitude 39° S., corresponding to Lisbon; the island State of Tasmania extends to latitude $43\frac{1}{2}^{\circ}$ S., i.e. as far from the South Pole as the South of France is from the North Pole. Australia looks northwards towards the East Indies and Papua, southwards to the Southern Ocean and the Antarctic regions beyond, eastward to the Pacific with Chile on the opposite shore, and westward to the Indian Ocean and South Africa.

Although the continent is remarkably compact and free from any notable diversities of elevation, yet its vast extent results in a great variety of climates. Broadly speaking, tropical Australia, like India, has a monsoon climate, with a rainy summer followed by a long dry season, and high temperatures all the year. The Australian monsoon occurs during the Indian dry season, and vice versa. The rainfall is heavy along a narrow coastal belt, and especially along the east coast of tropical Queensland, where the winds strike against the highlands; it lessens rapidly towards the interior. Besides Queensland, North Australia and the north of Western Australia have this type of climate. As in India, the monsoon may fail in areas of normally light rainfall, and disastrous drought result.

In the southern regions of Australia, and as far east as Melbourne, the rainfall seasons are the opposite to those of the north, i.e. there are warm rainy winters, and dry hot summers—the climate of the lands round the Mediterranean Sea. Here, too, there is a rapid falling off in rainfall towards the interior. The southern part of Western Australia and of South Australia, together with Western Victoria, have this pleasant type of climate. The rainfall, though moderate or even scanty, has the advantage of being reliable, and droughts are rare. The eastern and south-eastern extra-tropical region, comprising Southern Queensland, New South Wales and Eastern Victoria, has moderate rain all the year round, while the summers are hot and the winters warm or cool according to the locality. North of Sydney, the rains may fail, except along the highland belt, and throughout this region also the rainfall diminishes towards the interior. Consequently there is a fourth climate region, the arid interior of Australia, with a very low and unreliable rainfall, great summer heat, and sharp night frosts in winter. It extends right down to the west coast, separating the winter rainfall and monsoon regions of Western Australia. Finally a fifth type of climate is found in Tasmania, not unlike that of Britain, rainy—especially in the west—cool in summer, and mild in winter.

General Physical Conditions.—The western half of Australia is a low tableland, from the margins of which short rivers of no great importance flow northwards and westwards. The best known is the Swan River, on which Perth stands. Eastern and south-eastern Australia comprises a belt of rolling highlands, rising somewhat steeply from the narrow coastal plain which separates them from the sea, and gradually sinking

Australia.

towards the interior of the continent. Viewed from the seaward side the edge of the highlands has the appearance of a mountain-range, hence the names Grampians, Australian Alps, Blue Mountains, applied to successive sections in Victoria and New South Wales. Short rivers, such as the Hunter behind Newcastle and the Fitzroy behind Rockhampton, drain the highlands to the east and south, while longer rivers drain them westwards to the great interior lowlands which separate the highlands from the tableland.

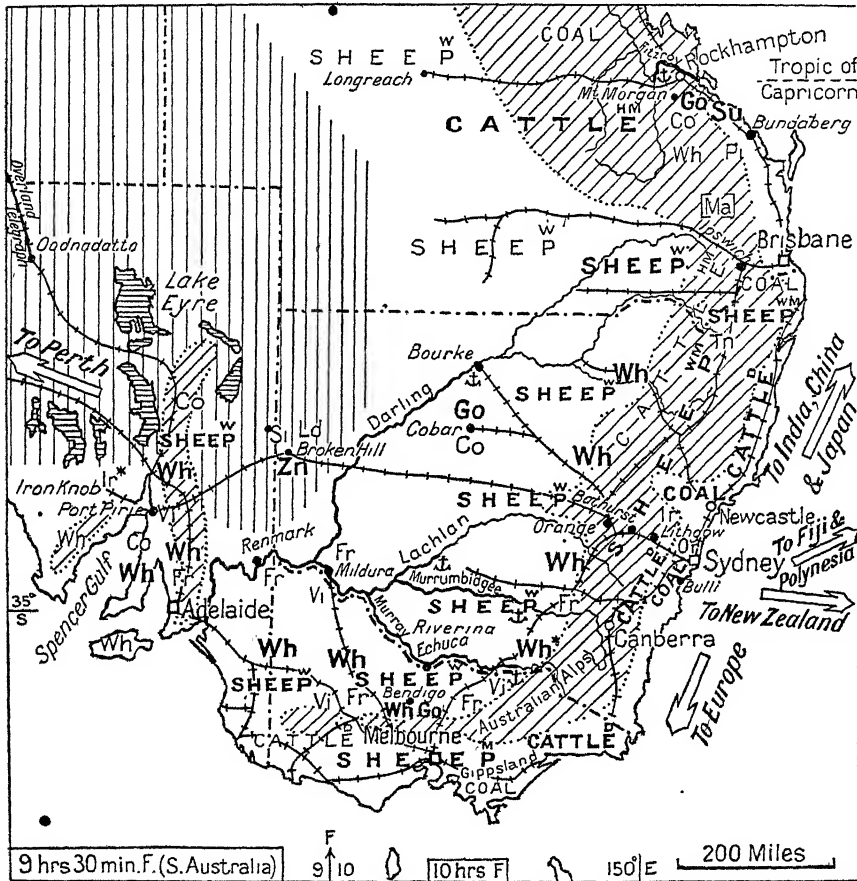


FIG. 8.—SOUTH-EAST AUSTRALIA.

The most important section of the lowlands is the Murray–Darling basin, drained by the rivers bearing those names, which form the only important river-system in the continent. The Darling, although the longer stream, is the less valuable, for it flows for a long distance through a region of low and uncertain rainfall, and hence is often useless either for navigation or for irrigation. The Murray drains a region of more regular rainfall, and is fed besides by perennial streams from the snowy summits of the Australian Alps, hence it has a greater and more uniform volume of water. The Lach-

Australia.

lan and Murrumbidgee, draining the southern interior of New South Wales, join the right bank of the Murray, and the united waters flow westwards and enter South Australia, where they are turned abruptly south by the barrier of the Mount Lofty Range. The outlet of the system, Lake Alexandrina, is a large shallow lagoon, separated from deep water by shifting sandbanks.

The Mount Lofty Range, lying athwart the westerly winds, has the useful effect of condensing extra rainfall, while parallel to it are two deep trough-like inlets, the Gulf of S. Vincent and Spencer Gulf, which form a most valuable addition to the length of seaboard of South Australia.

To the north of the Darling River the drainage from the inner slopes of the Queensland highlands is carried into the Lake Eyre basin, which has no outlet to the sea. The chief rivers, the Barcoo and Diamantina, are often reduced in their lower courses to chains of water-holes, for the Lake Eyre depression is the driest part of the continent, with less than 5 in. rainfall. Owing, however, to the conformation of the rocks, the region draining to Lake Eyre, and the upper Darling basin, have abundant underground water which can be tapped by artesian bores.

The *vegetation* of Australia determined its early development as a pastoral country, for there is an abundance of natural grasslands of different types, and true forests are limited to a few exceptionally well-watered areas. There are tropical jungles, with palms and creepers, in the extreme north and north-east, and eucalyptus forests with tree-ferns in the south-east, but speaking generally, there is a broad belt of very open woodland, with grasses instead of undershrubs, extending round the whole of the north-west, north and east of the continent. Within the tropics this belt is of a savannah character, comparable to the African grasslands, while in the temperate zone various gum-trees (eucalypts) are characteristic. With increasing distance from the sea, and consequent lessening rainfall, the timber thins out, and trees are usually seen only along the river banks. In still drier regions the fleshy-leaved salt bush and blue bush occur, which are greedily eaten by sheep, while in the arid interior proper there are expanses of pebbles and sand, varied by thickets of mulga (acacia) scrub, and tufts of sword-like spinifex and porcupine grass. The south and south-west regions with their winter rains have many evergreen trees and shrubs, as for instance the mallee scrub, of low-growing deep-rooted eucalypts, but here, too, the ground is open and suited for pasturage, or easily cleared for agriculture. In the extreme south-west corner, where over a small area the rainfall exceeds 40 in., forests of the *jarrah* and *karri* woods occur which yield a very hard and durable timber. Tasmania also has considerable forests in the wetter west, mainly of eucalyptus, oak, beech and other hardwoods.

Human and Economic Conditions.—Stock-raising, and the various derived industries and products, take the first place in the economy of Australia, yielding £82 millions (over 50 per cent.) of the total £145 millions of exported produce in 1926-27. The mines and the arable land each account for about half of the remainder.

The number of animals fluctuates between very wide limits, the flocks and herds rapidly increasing during good rainfall years, when pasturage is abundant, and falling by millions during a drought. Australia disputes with Argentina the position of premier **sheep** country, the flocks numbering

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between 80 and 100 millions, although they rose in 1925 to 103 millions. New South Wales, with flocks between 40 and 50 millions, is the leading sheep-breeding State, for it has the greatest stretch of the rolling temperate grasslands which form ideal pastures. The merino sheep, bred for wool, predominates in the interior, for a dry climate suits it best, while heavier cross-bred sheep, yielding larger carcasses, are more important towards the wetter coastal belt. Southern (temperate) Queensland, with similar zones of sheep country, carries 15-20 millions, while Victoria has the third place with 12-15 millions. South Australia and West Australia have about 5-7 millions apiece, and Tasmania 2 millions.

The number of sheep and lambs slaughtered annually varies from 8 to 14 millions, and in this respect Victoria, with its moister and cooler pastures, supplies more carcasses than Queensland, although New South Wales still takes the first place. Normally the meat trade is worth about £5-7 millions, but the value of the wool is much greater. This may be estimated at 700-800 million lb., with a value of over £40-60 millions. About 25 per cent. of the wool is scoured and washed before export, effecting a great saving in weight and bulk, the rest is sent abroad in the grease. *Tallow* is exported to the value of over £1 million.

The **cattle** in the Commonwealth number from 12 to 13 millions, nearly half of which are in Queensland. The tropical savannahs of this State are admirably suited to the rearing of heavy beef-cattle, and at Rockhampton and Townsville on the coast there are important meat-preserving works. The savannah belt extends through the Northern Territory and the north of Western Australia, where cattle are likewise important, and a large meat-packing works has been erected at Port Darwin. Enormous areas of cattle-country, however, are still unoccupied or thinly occupied.

Dairy-herds become more important in the temperate south-east, especially on the coast plains of New South Wales (e.g. the Illawarra district) and of Victoria (e.g. in Gippsland). The cooler and wetter climate gives the rich pasturage necessary, and suits the production of butter.

One and a half to two million beasts are slaughtered annually, the average value of chilled beef exported being £3 millions, but the market has recently been depressed. The production of *butter* and *cheese* (from 2½ million milch cows) fluctuates considerably according to the season, but there is a general upward trend over an average of years. The figures for 1918-19 gave 182 million lb. butter, of which 140 million lb. were consumed locally, and 25½ million lb. cheese, of which 10 millions remained for export. In 1926-7, 252 million lb. of butter were produced, and 26½ million lb. of cheese. The butter export was valued at nearly £5½ millions as against £10 millions in 1924-5. There is also a surplus of condensed and evaporated *milk* to send abroad, Victoria taking the lead in this industry with 73 per cent. of the output.

The number of **pigs** bred varies very greatly, but may be put down at about 1 million. The bacon, ham and lard produced suffice for local use, but the surplus for export is small. The ratio of pigs to population, namely 1 to 6, may be compared to that in Denmark, an exporting country, where it is 1 to 2, while in the United States it is rather less.

The dry pastures on which the merino sheep is bred are equally suited to the *angora goat*, and a small industry (11,000 animals), capable of great extension, has begun.

Australia.

Agriculture increased in importance early in the twentieth century, the cultivated area per head of population being 3.4 acres in 1916-17, and 2.9 acres in 1926-7. The total in the latter year was 17.8 million acres of arable land, to which may be added 3.7 million under permanent sown grasses, mainly used for dairying. In the last 10 years, however, there has been no increase of acreage. In the British Isles the arable land covers 25.2 million acres, and the population is 49 millions. Between 1916 and 1920, the cropped area steadily fell off, until there was a decrease of 3 million acres, chiefly represented by wheat lands. The 1920-21 season saw this vast area under the plough once more, and it is hoped that the set-back will not be repeated. The prickly pear and rabbit pests menace farmers.

Nearly 66 per cent. of the ploughed land is devoted to **wheat**, to which the moderate rainfall is specially suited. The southern areas of Western Australia and South Australia, with the west of Victoria, have the typical "wheat climate" of Spain, Italy and California, namely winter and spring rains and summer drought.

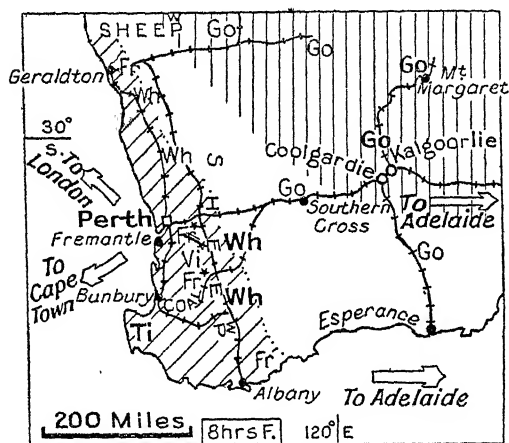


FIG. 9.—SOUTH-WEST AUSTRALIA.

The coastal belts and seaward slopes of the highlands of New South Wales and Victoria are too wet for wheat, but on the lee-side of the highlands, where the rainfall is below 30 in., there is a crescent-shaped "wheat belt" some hundred miles wide and 700 miles long, running through the two temperate States. Behind the Australian Alps the belt extends down into the Riverina, the famous sheep-breeding plains between the Murrumbidgee and Murray Rivers, and it is here that irrigation and "dry-farming" are greatly increasing the profitable acreage. Farther north the belt is confined to the more elevated ground, including the Liverpool Plains. The yield in 1916 was 152½ million bushels—about a quarter that of the United States—but the fluctuations due to drought and poor harvests are great, the average for ten years being only 130 million bushels, and the value of the proportion exported £19 millions. The 1920-21 crop was estimated at 146 million bushels, an increase of no less than 100 million bushels on the previous season, and that of 1926-27 was 161 million bushels.

Next to wheat, *hay* and green fodder occupy the largest acreage (about 18 per cent.), followed by *oats*. In Tasmania, owing to the wetter, cooler climate, these two crops rank before wheat, but in tropical Queensland the second place is held by *maize*, the typical cereal of the savannah lands. At present the acreage under maize is very small, only 300,000 acres, and the yield of 7-8 million bushels does not suffice for local needs. The *hay* is not of meadow grasses, but of wheat and oats, which are cut green or left to ripen according to the season and the fluctuations of the market. There is also a

Australia.

considerable quantity of lucerne hay in Queensland and in New South Wales, but this crop, like maize, has not received the attention given to it in other stock-breeding countries, Australian stock-breeders being somewhat conservative.

Australia is now able to grow sufficient **cane-sugar** for her domestic needs (including jam-making), about 90 per cent. of the acreage being on the east coast of Queensland, and the rest just over the border in New South Wales. A heavy rainfall and prolonged hot season are necessary, and Mackay, Bundaberg and Cairns are the chief centres. A production exceeding $\frac{1}{2}$ million tons was first obtained in 1917, and has since been doubled. The industry is notable in that coloured labour is prohibited. *Beet-sugar* up to 120,000 tons in a single year is produced in Victoria.

The climate and soil conditions found favourable to cane-sugar are also suited to the **cotton** plant, but it was considered that the absence of coloured labour precludes the establishment of this industry on a commercial scale until machine-picking is introduced. Recent prices have, however, been sufficient to pay for white labour, and the output from Queensland and New South Wales now reaches 10,000 bales, although the hopes for a really large-scale industry have not been realized. Ginneries are at Rockhampton and Brisbane.

The **vine** is grown in the south and south-east of Australia, particularly in South Australia and the neighbouring parts of Victoria, where the "Mediterranean" climate exactly suits its requirements. In Western Australia, with a similar climate, there is room for extension of the vineyards. The production of wine has not made the progress expected, for the Australians themselves, being of British descent, are not habitual wine drinkers, and the difficulty of competing with established brands abroad is great. The *sultana*, *raisin* and *currant* industry has made much more rapid strides, and there is a growing surplus for export. Table grapes are grown for the home market.

Of other **fruits**, the banana and pineapple are notable in tropical Queensland, citrus fruits in subtropical New South Wales, and apples in temperate Tasmania, while apricots, peaches, figs, almonds, olives come from the regions with the Mediterranean type of climate. In addition the stone, pome and soft fruits of Britain are grown in the well-watered parts of New South Wales, Victoria and Tasmania, and there has grown up a large *jam-making* industry.

The increasing use of fertilizers (manufactured locally from bones and from $\frac{1}{2}$ million tons of rock phosphates imported annually from the Pacific) points to the more thorough methods of soil cultivation now prevailing, and a further point of interest is the use of *ensilage*. The green fodder cut during wet seasons and stored in the silo is excellent both for dairy-cattle and lambs, and can be fed to stock during seasons of drought. Government assistance and advice is given to farmers proposing to erect silos, which have now been built on over 650 holdings, including over 400 in New South Wales.

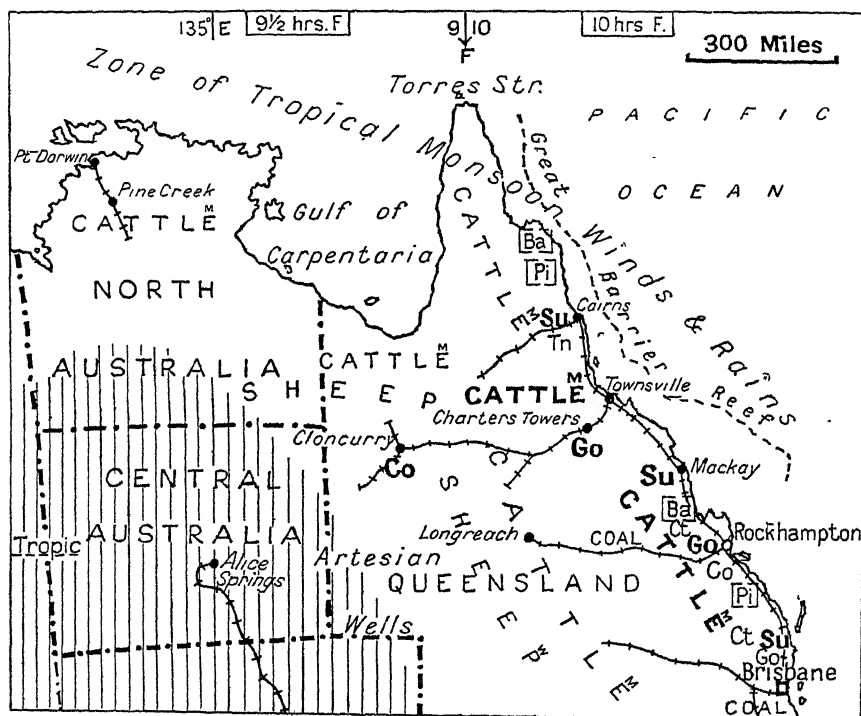
The **timber** resources of the Commonwealth are conserved by the State Forestry Departments. They consist chiefly of hardwoods and cabinet woods, which are exploited in Queensland, Tasmania and West Australia. The export, however, averages barely £1½ millions, whereas imported American soft woods and Scandinavian dressed timber cost over £4 millions.

The **mining** industries of Australia are very important, yet less so than

Australia.

formerly. The early discoveries of gold in Victoria—whence came the "Welcome Stranger" nugget weighing 2,284 oz.—played their part in attracting the population which stayed to develop the land, and although the output of gold has decreased, that of other metals has become more valuable.

The production of **gold** has decreased steadily and is now little more than £2 millions, and of this over $\frac{2}{3}$ comes from Western Australia, where the mines are on the arid interior tableland. To name them in their present order of importance, the East Coolgardie field lies 300 miles east of Perth, Mount Margaret lies to the north of Coolgardie, while the Murchison field



* FIG. 10.—NORTH-EAST AUSTRALIA.

is to the west of Mount Margaret, and the Yilgarn field to the south. But the auriferous reefs are widely spread, and new discoveries are always probable.

Victoria is the second gold State, with a steady yield from the quartz reef of Bendigo and the alluvial field of Poseidon farther west, scene of a rush in 1907. These fields occur in the old rocks building the eastern highlands, which sweep right round to Cape York, and hence all three eastern States are metalliferous. Queensland obtains gold from the copper and other ores from Mount Morgan and from the Charters Towers and Gympie fields. New South Wales has a smaller production, the premier mine being at Mount

Australia.

Boppy in the Cobar district, where the old rocks crop out at a distance from the highlands. In Tasmania the bulk of the gold is produced from the copper region on the West Coast, and from the Beaconsfield mine in the north.

The **copper** produced in the Commonwealth in 1918 was valued at over £4½ millions, and half of the total came from Queensland, in which State the rich Cloncurry district occurs, but the figure has fallen to from £1½ to a million. Mount Morgan behind Rockhampton has in the past been highly productive. Tasmania has now the second greatest output of copper, chiefly from the West Coast (Mount Lyell Mining Co.), and South Australia, once the premier State, ranks fourth. The S.A. mines occur near the shores of the Spencer Gulf (Moonta, Wallaroo), and in general in the block of rocks that builds the Mount Lofly and Flinders Ranges. New South Wales has the Cobar mines.

Silver-lead is produced to the value of £5 millions, the leading district being Broken Hill in New South Wales. The silver-lead of Broken Hill is taken to Port Pirie, S.A., which has large smelting works. **Tin** is also very important in Western Tasmania, which is responsible for over one-third of the output, averaging £¾ million. The Tasmanian highlands are part of the same geological formation as those of the mainland, and tin is also mined at Herberton in Queensland and behind the New England Range in New South Wales.

Zinc is produced in quantity in Tasmania and at the famous Broken Hill mining district of New South Wales, where the sulphide ores are rich in zinc blende. Production dates only from 1909, but the average output has been 250,000 tons annually, worth at present high prices over £1¼ millions. The mines are especially valuable owing to the great deficiency of zinc within the boundaries of the British Empire. Canada in 1928 produced 81,000 tons only.

Iron ore occurs very widely, and the Australian iron and steel industry has become firmly established in recent years. The ores from the mountain known as Iron Knob, about 48 miles from the north-west shore of Spencer Gulf, are shipped to the Newcastle coal-field for smelting, and local New South Wales ores were until recently smelted at Lithgow, on the inland margin of the same field.

The output of pig-iron in 1920-21 was nearly ½ million tons, but has since greatly decreased, while that of steel ingots has risen from over 200,000 tons to over 350,000 tons. Tar, motor-spirit, and ammonium sulphate are important by-products of the coke-ovens.

Coal is abundant in Australia, and the output had reached 12½ million tons annually before the War. The bulk of this comes from the Sydney coal basin, which underlies the harbour, and has outcrops in the north at Newcastle, in the west at Lithgow, and in the south of Bulli. The output was 9½ million tons in 1928. Next in value are the Ipswich mines near Brisbane, and the State Coal Mine in southern Gippsland. Western Australia has a fairly important mine at Collie behind the port of Bunbury, and there is also coal-mining at Clermont in the hinterland of Rockhampton, and in north-eastern Tasmania. South Australia alone is without useful mines, but all those named are in close relation to leading seaports. Hence Australia is able to supply practically the whole of her domestic requirements and has normally 5 or 6 million tons for export, consigned

Australia.

chiefly to New Zealand, and, in small quantities, to the islands and seaboard of the Pacific and Indian Oceans.

Oil-shale fields of promise have been located near Lithgow and in north-west Tasmania, and development has begun. In the latter State there is a steady output of the valuable mineral *osmiridium* at Mount Stewart.

The location of the various metalliferous mines determined in the main the direction of early railroad construction in the Commonwealth, since it was necessary to bring down the ores to the coast and carry up all necessities of life to the mining communities. Hence a series of isolated lines was built, which ran direct from the coast to some point in the interior. The next step was the gradual linking up of the State capitals, which is now complete, so that it is possible to travel from Brisbane to Perth, via Sydney, Melbourne and Adelaide. From Brisbane a coast railway runs northward through Maryborough, Bundaberg, Rockhampton, Mackay and Townsville to Cairns in tropical Queensland. From Perth there is an extension to Geraldton. The line in the Northern Territory from Darwin to Emungalan is still isolated, but will eventually be linked up with Oodnadatta and form a second trans-continental route. In New South Wales and Victoria there is now a fairly complete network of lines through the chief agricultural and dairying districts, a fact that has had much to do with the development and closer settlement of the land. A serious transport difficulty in Australia is the lack of uniformity of gauge, due to the haphazard fashion in which the railway system grew up; this involves costly delay and double handling at the inter-State boundaries. The difficulty will be solved shortly as far as the main lines are concerned by the laying of a third rail.

With the exception of Tasmania, where it is unnecessary, all the States give careful attention to *irrigation*, both with a view to extending the cultivable area and also because irrigated land demands intensive culture, and thus leads to the closer settlement recognized as so desirable. The oldest irrigation colonies are Mildura in Victoria, and Renmark in South Australia, both on the left bank of the lower Murray, from which they draw their water-supply. The colonists grow Mediterranean fruits, and especially the vine, with marked success. The largest system in Victoria is the Goulburn scheme, which supplies water for intensive culture, domestic use and stock, to an area of 850,000 acres, lying between the highlands and the south bank of the Murray River. The Goulburn is a tributary of the Murray, joining it at Echuca, the head of navigation. Farther west, between the Grampians and the Murray, in a yet drier area, the Wimmera-Mallee scheme provides water for domestic and stock purposes over 850 square miles.

The most important scheme in New South Wales is the damming of the Murrumbidgee River at Burrinjuck. The upper waters of the river and its tributaries are impounded into a great lake, and it is estimated that the irrigated land, when fully settled, will support 100,000 people. Fruit-farming and dairying are highly successful in the towns and villages already occupied, and since 1924-25 **rice** has been grown on a commercial scale with such success that the output more than meets the Commonwealth demand of 17,000 tons.

Many smaller schemes are in operation in different parts of the Commonwealth, while in Queensland, and to a less extent in New South Wales,

Australia.

artesian wells play an important part in watering stock. In Queensland, however, the question of close settlement is bound up with the White Australia policy. Similar regions elsewhere support dense communities of black, yellow or brown people, and even those of the white Mediterranean race, although often with coloured admixture. Whether white men can effectively occupy the land remains to be seen. Certainly, the sugar planters are successful, and Queensland is free from the more virulent tropical diseases. On the other hand, it may be argued that the uniformity of the Australian population as regards birth and traditions, valuable though it may be from an economic standpoint, has yet its economic drawbacks. A mixed population possesses a variety of tastes and aptitudes that lead to a greater diversity of crops and agricultural methods, thus ensuring that districts with varying soils and climates will be used to the best advantage. This is clearly seen in the cases of the United States and the Argentine Republic.

Tasmania, with its heavy rainfall, is the only part of the Commonwealth in which water-power is abundant. The rivers rise in mountain lakes, are swift, and of uniform volume. The chief scheme is that operated by the State, which supplies power derived from the Great Lake to Hobart and its suburbs. Zinc concentrates from Broken Hill and West Tasmania are extracted at Risdon on a large scale; there is an important calcium-carbide industry, and further, electro-metallurgic industries, besides the manufacture of super-phosphates are being established. The brown coal of Victoria is used as a source of electrical energy for the Melbourne district (transmission line 82 miles), for the high cost and relative scarcity of labour make it essential to substitute power for manual work wherever possible. The necessary works are at Morwell.

The industries of the Commonwealth are in the main concerned with working up the primary products—the most numerous classes of establishments being tanneries, fell-mongering and wool-scouring factories, butter, cheese and condensed-milk factories, meat-packing and freezing works, soap and candle works, smelting works, sugar mills, flour mills, and so on.

There is, however, an increasing output of manufactured articles, of which agricultural implements form an important class. Large scale engineering is firmly established; every part, for example, of a locomotive being procurable within the country, while with the exception of a proportion of the steel plates, Australian manufacturers supplied the whole of the material required for carrying out the Government shipbuilding programme. The complaint is made, however, that local labour laws make competition

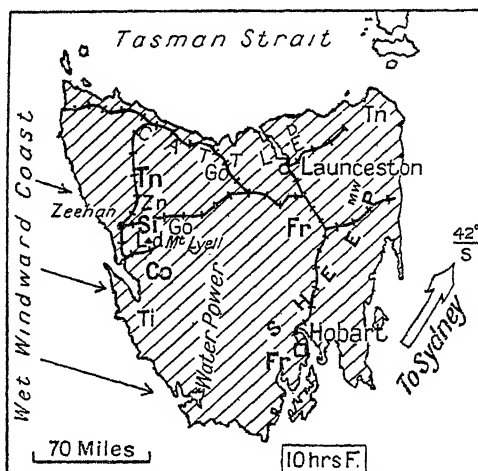


FIG. 11.—TASMANIA.

Australia.

with German, Belgian and British manufacturers of similar goods very difficult. There is also an important boot and shoe industry, with an output value of £10 millions, and a well-established woollen industry, the mills turning out good-quality tweeds, flannels and blankets, although in quantities far below even local requirements. Jam, biscuits, soap, and ready-made clothing are other commodities turned out on a large scale.

The output of the factories of all classes is worth over £400 millions, of which New South Wales, with its coal-field, produced 44 per cent.; Victoria, with its closely settled population, 31 per cent.; Queensland (chiefly round Brisbane and Rockhampton), 10 per cent.; and South Australia (Adelaide), 9 per cent. The number of employees was 470,000, of 7.8 per cent. of the total population, and it may be noted that in Canada the corresponding figure is 6.4 per cent.

Trade Relations.—The dislocation due to the War reduced the imports from the United Kingdom from 60 per cent. to 50 per cent., while those from the United States rose from 11 per cent. to 21 per cent. Germany's pre-war imports into Australia were valued at over £4½ millions. The changes introduced were permanent, and in 1928 the share of Great Britain in supplying imports was only 43 per cent., while that of the United States was 24 per cent., and that of Germany 4½ per cent. With Japan supplying a further 3 per cent., three-fourths of the imports are accounted for. India, sending jute bags and wool-packs, and Ceylon, sending tea, supply another 5 per cent., and there is also a fair trade from Canada, New Zealand, and France.

As regards exports, the same process of wider distribution has taken place. Great Britain's share has fallen from 45 per cent. to 38 per cent., while that of France has risen to 10 per cent. Two-thirds of the total (mainly the wool) is thus accounted for, and the next countries concerned are Belgium, taking 7 per cent. (partly for re-export), and the United States, taking 6 per cent. A feature of note during recent years has been the development of Australia's trade with what may be termed her natural markets—the tropical countries bordering the Pacific and Indian Oceans—in which there is a demand for the food-stuffs of the temperate zone and for manufactured articles. The annual value of this trade has risen during the twentieth century from £1 million to nearly £20 millions.

General Information.—Money, weights and measures are as in Great Britain. Of the twenty-four banks trading in the Commonwealth, the most important have offices in London, viz., the Bank of Australasia; the Union Bank of Australia, Ltd.; the Commercial Bank of Australia; the Commonwealth Bank of Australia; the Bank of New South Wales; the English, Scottish and Australian Bank, Ltd. Commonwealth treasury notes are in circulation.

Mails are conveyed by subsidized steamers via the Suez Canal, and can be landed at Fremantle, Western Australia, and conveyed by air to the eastern States, the time taken from London being about twenty-seven days. There are also services by way of New Zealand, via San Francisco and Vancouver, taking about ten days longer. A fleet of over 150 vessels is engaged in coastwise trade, and the Government recently experimented in the purchase of a State-owned mercantile fleet, with indifferent success. The customs tariffs give preference to goods from the United Kingdom, and there

Austria.

is a reciprocal agreement with South Africa. There are H.M. Trade Commissioners at Melbourne and Sydney, besides Imperial Trade Correspondents at Adelaide, Hobart and Perth. The High Commissioner, and the Agents-General of the respective States answer trade enquiries in London. Direct wireless and air communication with Britain is promised shortly. Australia is a member of the League of Nations.

AUSTRIA

Area and Population.—The Republic of Austria has an area of about 32,000 miles (about the area of Ireland) and a population of approximately $6\frac{1}{2}$ millions. Of these about one-third (2 millions) formerly lived in Vienna, which, as the capital of the great Austro-Hungarian Monarchy, was a cosmopolitan city, ranking as the "Paris" of East-Central Europe. As the impoverished capital of a small Republic, Vienna necessarily declined in population and importance, but the unique position which the city holds, at a gathering-point of routes from all points of the compass, ensures to it a large measure of prosperity now economic order is restored. Moreover, it is a great financial centre, and the activities of the big Banking Houses and of the Stock Exchange have not been extinguished. It is the leading centre, too, of Germanic culture, and has Art Galleries and Museums of world reputation. The people of Austria are Germans by race and speech, Roman Catholics by religion, but there is complete religious liberty. The foreign trade has a value of £160–170 millions annually, or about £27 per capita, as compared to £20 per capita in Czechoslovakia. The excess of imports—£29 millions—is partly balanced by money accruing from the tourist trade, transit trade, and banking services. Since Austria now lacks a seaboard, cheap sea-borne goods, e.g. from Great Britain and the United States, have not any great advantage in competing for this market. Imports come mainly from Germany and Czechoslovakia, exports go to the Lower Danubian States. Apart from Vienna, Linz, on the Danube, with 100,000 people, Graz, in the mining district, with 157,000, and Innsbruck, in the Tyrol, are the chief towns.

Position and General Physical Conditions.—Austria marches with no less than six other States—Germany (Bavaria), Czechoslovakia, Hungary, Yugoslavia, Italy and Switzerland. Its greatest extent is from west to east—over 300 miles, while it lies between latitudes $46\frac{1}{2}^{\circ}$ N. and 49° N., the position of Vienna being about 1° farther south than that of Paris. The only lowland is the Vienna Basin, where the summer heat and winter cold are somewhat severe, and the rainfall moderate. West of Vienna is a hilly country of which the main feature is the Danube valley, this river entering Austria from Germany by a picturesque gorge. Nearly half the country forms part of the Alpine System, the chief subdivisions being the Vorarlberg, on the borders of Switzerland; the Austrian Tyrol, trenched by the Inn valley, and crossed by the "Brenner Route" from Germany to Italy; the Eastern Alps, divided into parallel chains and spurs

Austria.

by a series of valleys opening to the north-east and east, i.e. to Vienna and Graz. The most southerly valley, that of the Drave, expands to the Klagenfurt Basin, an area (now Austrian) in which a plebiscite was taken to decide its political affiliation. The Alpine region has a climate resembling that of Switzerland, with abundant rains, warm summers, and severe winters, when deep snow lies everywhere. The eastern spurs of the mountains form a barrier between Austria and the Adriatic Sea, its nearest seaboard. Hence the route to Trieste, the former port of the Empire, is both circuitous and costly on account of the difficult gradients.

The Austrian Alps are well timbered, hardwoods (beech, oak, chestnut) predominating on the lower slopes, and softwoods (pine, larch, fir) at higher altitudes. There are, besides, rich Alpine meadows and valley pastures, while the scenery, with its snow-peaks, waterfalls and lakelets, is as beautiful as that of Switzerland. But the Austrian mountain zone is less accessible than the Swiss, and while it is capable of development on similar lines, it cannot attain the prosperity of the neighbouring Confederation, which has long enjoyed peculiar political and educational advantages.

Human and Economic Conditions.—Austria has no very great advantages of climate or soil, and farming is only of secondary importance, the country being very dependent on foreign sources for food. The Danube valley and the eastern margins of the Alps are carefully cultivated, **rye** being the chief cereal, while comparatively little *wheat* and *barley* are grown. **Potatoes** are abundant, and **hay** is also important, so that there are large numbers of *pigs*, *cattle* and *poultry* on the farms, supplying fresh meat and milk to the towns. A little *flax* is grown in Upper Austria; there is some *sugar-beet* cultivation, besides many *vineyards* in the Vienna Basin, and there are *hop* gardens in Styria, but in none of these respects can the Republic be self-sufficing. In the Alpine region **cattle** are grazed in the high pastures in summer and stall-fed on hay in the winter, but the industry is not as yet so well organized as in Switzerland. The very important mountain forests have, however, been mentioned, and **timber** is a valuable commodity available for home manufacture and for export.

There is considerable mineral wealth in the eastern margins of the Alps (Styria and Carinthia), including large beds of **lignite** and important deposits of **iron**. The former produces over 3 million tons of fuel, and the output could doubtless be increased. In addition, there is a small field of hard **coal** near Steyr in Upper Austria, but the yield is trifling in comparison to the needs of the country, which are estimated at 14 million tons of hard coal, practically all of which must be imported from Czechoslovakia (Silesian mines) or Germany. The output of iron ore amounts to about 1½–2 million tons, and in addition there are productive **salt** mines in the neighbourhood of Salzburg. **Magnesite** is mined on a large scale, and 152,000 tons were exported in 1927, the Veitich mines (in Styria) being especially rich, but there are deposits in many districts and foreign capital (German, French, Swiss, American) is invested in the industry. Some smaller scattered mines of copper, lead and zinc, while not sufficing for local needs, yet add to the internal resources of the country; consequently mining gives employment to large numbers of people.

As regards manufacturing industries, smelting and the refining of metals naturally take first place. Graz and Leoben, in Styria, and Steyr, in Upper Austria, are notable in this respect, while the same towns, with Vienna,

Azerbaijan (U.S.S.R.).

have important manufactures of agricultural and textile *machinery*, cutlery, tools and hardware. The pre-war output of pig-iron was 600,000 tons, and that of 1927 (dependent on imported coke) reached 433,000 tons. The steel output is over $\frac{1}{2}$ million tons. Vienna and Wiener Neustadt make machinery and rolling-stock, and the former city has a manufacture of iron **furniture** which has a good market abroad, as has also the famous Austrian bent-wood furniture, which is made from native timber in Vienna and its suburbs. Textile industries, including **knit-goods**, are well developed, and in the Voralberg, on the Swiss border, the villagers carry on the cotton embroidery and muslin industry on the same lines as in the neighbouring State. Vienna has a small silk manufacture and makes the noted Austrian **velours**, the hat export being considerable. It is a centre also for fine *leather* goods. *Chemical* industries (dependent partly on the salt mines) are well developed, and **matches** are made in bulk, chiefly in Vienna or its neighbourhood, while **paper** and paper goods are manufactured in the Danube valley, round Wiener-Neustadt, and in Styria. The Tyrol and especially the Salzkammergut have peasant industries of wood-carving, including toy-making and wooden-clock making, as in Switzerland, but again on a much less important scale. **Musical instruments**, including pianos, are a valuable manufacture in Vienna, as are **motor-cars** and *cigars*.

Water-power is highly developed, both for traction and industry.

Trade Relations.—Austria must buy a large proportion of the food-stuffs she consumes, including grain, sugar and wine, besides colonial wares; she must also buy certain manufactured goods, including textiles, in bulk, and she must buy hard coal. To pay for these she has first of all a certain range of specialized manufactures to offer (the Austrians rank high as regards technical ability, skill and application); secondly, the beauties of the Tyrol, where the tourist industry is important, and is capable of development; thirdly, a certain quantity of timber; and fourthly, the amenities and activities of Vienna, in so far as these have not been permanently destroyed by the War and its consequences. As a centre of luxury and fashion, Vienna is a market for British luxury articles and manufactured goods of high repute, but apart from this trade, her wants are most naturally satisfied by Germany, Italy, and the countries, e.g. Czechoslovakia and Hungary, which formerly were part of the Austro-Hungarian monarchy, a unit which was to a very large extent economically self-contained.

General Information.—The unit of currency since 1925 has been the *schilling*, of which 34.585 equal the £ sterling. A new National Bank for Austria was opened in 1923. The metric system of weights and measures is in general use. Mails reach the capital in two days, or in $1\frac{1}{2}$ days by air. There is a British Consul at Vienna. A Commercial Secretary is attached to the British Legation. Austria is a member of the League of Nations.

AZERBAIJAN (U.S.S.R.)

See *Trans-Caucasia*, p. 424.

AZORES

Area and Population.—The Azores are treated as an integral part of Portugal, and not as a colony, and send representatives to the Lisbon legislature. The chief islands are S. Michael, Terceira, Pico, Fayal, S. George and Graciosa, covering in all an area of 922 square miles (one-eighth the area of Wales), and having a population of about $\frac{1}{4}$ million, which has lately been declining. Of this total, 17,000 live at Ponta Delgada, the chief seaport, on S. Michael, and 10,000 at Angra do Heroismo on Terceira. Emigration takes place to the United States and to a less extent to Brazil, and it is estimated that 100,000 Azoreans live in these countries. Many return home when they have acquired some little capital.

Position and General Conditions.—The Azores lie in mid-Atlantic, 1,000 miles west of Portugal, forming a scattered group between meridians 25° and 32° W., and latitudes 36° and 40° N. They have a volcanic soil, of a very fertile character, and an excellent climate, especially in winter, resembling that of Madeira or Bermudas, in its sub-tropical character.

The islands yield wheat, maize, beans, vines, sugar-beet and tobacco for local needs, and some *wine* is exported to Lisbon. *Pine-apples* are also grown for the London market. There are some 21,000 cattle on the islands, which are driven to the hill pastures in the hot summer. Besides supplying local needs, they yield some *cheese* for Lisbon, and are also exported for meat. *Lobsters* are caught and exported. There are also *whale* fisheries. The orange groves were destroyed by disease.

The Azores are important as a calling and cable station between North America and Europe. Mails reach the islands in 10–12 days *via* Portugal. The climate and position are favourable for the development of a tourist industry. Currency, weights and measures are as in Portugal, and there are branches of the National Overseas Bank of Portugal in Ponta Delgada and Angra do Heroismo. There is a British Consul at Ponta Delgada.

BAHAMAS

See **British West Indies**, p. 85.

BAHRAIN ISLANDS

Area and Population.—The Bahrain Islands are a British Protectorate, the Government of India appointing a Political Resident to the Persian Gulf through whom relations with the native Chief of Bahrain are conducted. The largest islands are Bahrain and Muharrak, and the total area of the group is about 270 square miles. The population is 103,000, chiefly Arabs and negroes, with in addition a large number of Indian and Persian merchants. Manama, the capital and chief seaport, has 25,000 inhabitants; Muharrak, on the island of that name, has 22,000. The total foreign trade in the last few years has averaged £1½ millions, the islands serving as an *entrepôt* for a considerable portion of the mainland of Arabia.

Baluchistan.

Position and General Conditions.—The Bahrain Islands lie in the Persian Gulf, off the Arabian coast of El Hasa. Their latitude is about 26° N., and the climate is very hot in summer, warm in winter, with very little rainfall. Sheep, goats and donkeys are reared, and **dates** are grown, but the principal industry is **pearl-fishing**, which employs many thousands of the inhabitants. The pearls (worth £½ million in a good year) obtained by the mainland fishers are also sold to the Bahrain merchants. The chief trade is with India (Bombay), whence rice, sugar, tea and coffee are imported, besides large quantities of piece goods. These goods are not necessarily of Indian origin, the textiles including products from Manchester, China and Japan, and the food-stuffs including East Indian produce. There is regular steamship communication with India, and part of the imports are redistributed by *dhows* to the neighbouring mainland, and by caravan to the Nejd in Central Arabia.

The rupee is the coin in general use, but British sovereigns, Turkish lire, Persian double krans, and Austrian dollars are also in circulation. The Eastern Bank has a branch in Bahrain. There is a British Indian Post Office at Manama, and a wireless station. Mails are *viâ* India.

BALEARIC ISLANDS

See Spain, p. 402.

BALUCHISTAN

Area and Population.—Baluchistan is a dependency of India consisting of British Baluchistan and the Agency Territories under direct British administration, and the Native States of Kalat and Las Bela, ruled by the Khan of Kalat and the Jam of Las Bela respectively. The total area is nearly 135,000 square miles (Native States 80,400 square miles), and the population at the last census was 800,000, of whom rather more than half are in the territory directly administered by Britain. The people are of various races, including Baluchs, Pathans, and Brahui (the hill tribes), besides numerous subject peoples, all these being of the Mohammedan faith. There are, in addition, some tens of thousands of Hindus engaged in trade, or in Government service. The language of the majority is derived from Persian with the addition of many Indian words. The total trade, which is in the main with India, is small, being usually under £2 millions. The chief garrison towns are Quetta with 49,000 inhabitants (commanding the Bolan Pass), Chaman, Fort Sandeman and Loralai, and the chief native town is Kalat.

Position, Climate and General Physical Conditions.

—Baluchistan is situated to the west of India, between latitudes 25° and 32° N. It lies beyond the effective range of the Indian monsoon, and such scanty rainfall as it receives (under 8 in. on an average) comes in winter, like that of Persia and Mesopotamia. The dryness of the air and the elevated character of the whole country lead to great daily and annual extremes of temperature, snow falling in winter, while in summer the heat is almost as

Bavaria.

great as in the Punjab. The Suleiman mountain ranges border the country towards India, and the Mekran ridges towards the Arabian Sea, while the interior consists of elevated plains, forming part of the plateau which extends through Persia. The rivers which come down from the mountains gradually dwindle as they cross the plains and fail to reach the sea. Vegetation is naturally scanty—light pasture and tamarisk scrub, with wild olive and juniper groves on the mountain slopes, being characteristic. Grafting of the olives with the cultivated variety has been suggested. Much of the country is a rocky or sandy desert.

Human and Economic Conditions.—Cultivation is carried on in the mountain valleys, and wherever water can be obtained for primitive irrigation. *Cereals* (wheat, barley, millet) and *fruit*, e.g. apricots, figs, are grown, and the valleys of Mekran, in the south, are famous for their *dates*. Pastoral industries are important, *camels*, *sheep* and *goats* being reared, and leather, hair, wool and skins are articles of commerce: many of the pastoral tribes are necessarily nomadic. *Fishing* is carried on along the Mekran coast, and dried fish is an article of export.

There is probably considerable mineral wealth in Baluchistan. Some 3,000–4,000 tons of **coal** are mined in the north for the railway, and the **chromite** mines of Pishin have been exploited for a considerable period. The output is very variable, according to the state of the market, but during 1926–27 it reached 14–15,000 tons. Camel transport is employed between the mines and the railway.

Trade Relations and General Information.—In the directly administered districts of Baluchistan there are nearly a thousand miles of fair roads. A railway from Jacobabad in India runs to Quetta, where it bifurcates and extends to the Afghan and Persian frontiers respectively, with the result that there is a transit trade to the value of £2–3 millions. The country is, however, of strategic rather than economic importance and the trade across the borders is in native hands. Currency, weights and measures are as in India. There are no postal or banking facilities.

BARBADOS

See **British West Indies**, p. 85.

BAROTSELAND

See **British South Africa**, p. 78.

BASUTOLAND

See **British South Africa**, p. 78.

BAVARIA

See **Germany**, p. 200.

BELGIAN CONGO

Area and Population.—The Belgian Congo is a colony administered by a Governor-General, the seat of administration being Léopoldville (Kinshasa) on the River Congo. It is divided into four provinces: Katanga, capital Elisabethville; Eastern Province, capital Stanleyville; Equatorial Province, capital Coquilhatville; Congo-Kasai, capital Léopoldville—each administered by a Vice-Governor. The area is nearly a million square miles (including the Ruanda-Urundi district, formerly part of German East

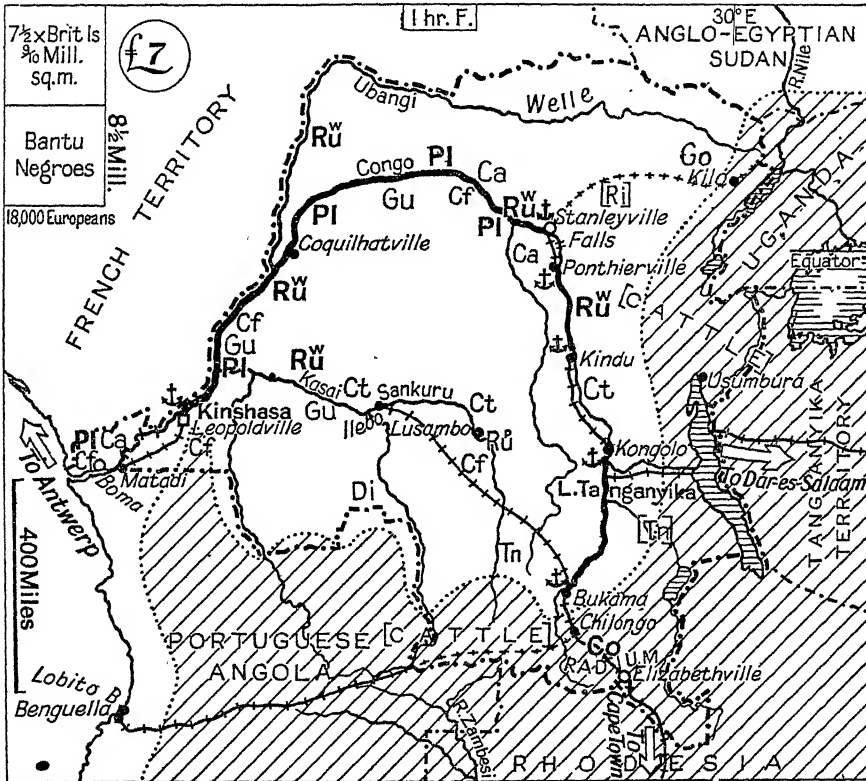


FIG. 12.—BELGIAN CONGO.

Africa), i.e. it is nearly as large as British South Africa, and the population is officially estimated at 8½ millions, chiefly Bantu negroes. This estimate is by some authorities considered far too low. The European population numbers about 18,000, of whom more than half are Belgians, but of the Belgians all but about 500 are officials, while the traders and planters include nearly 1,600 Portuguese, 800 English, 400 Americans, and many other nationalities. Trade has increased ten-fold, since 1913, and whereas in 1916-18 it averaged £15 millions, ten years later it reached the high figure of £60 millions. Imports have lately been in excess, owing to the activity

Belgian Congo.

of capital developments. The *per capita* trade is £7, a very high figure when it is recalled that nine-tenths of the inhabitants play no part in the economic life of the colony. Agricultural research is actively pursued by the Government.

Position and General Physical Conditions.—The Belgian Congo includes nearly the whole basin of the Congo River, and extends westwards from the Rift Valley (in which lie Lakes Tanganyika, Kivu, Albert Edward and Edward) to the Atlantic seaboard. The coast is, however, limited to the estuary of the Congo. The bounding latitudes are 5° N. and 12° S., so that the colony is wholly equatorial in character, and has a uniformly hot climate, with very heavy rains, especially at the equinoxes. Katanga Province, in the south, besides being farthest from the Equator, is also more elevated than the rest of the basin, and has a cooler and healthier climate. It is an open savannah country, whereas the main part of the basin is densely forested, especially in the valleys, although lighter woodlands are found on the rising ground between the numerous rivers. The Ruanda territory is also very elevated, and is an open country. The forest is in parts very dense, and difficult to penetrate owing to the lianes (creepers) that are festooned from tree to tree. It is haunted by the tsetse fly and the mosquito, so that cattle cannot be reared, and tropical fevers are prevalent. The Congo and its major tributaries the Ubangi and Kasai, are the main high-ways through the forest, both for native and European traffic. Unfortunately the course of the main stream of the Congo takes the form of a vast semicircle, flowing first to the north for about 700 miles, then north-west, west, and finally south-west to the sea, hence it offers a very circuitous routeway for all but local traffic.

Human and Economic Conditions.—The natives of the Congo practise a primitive agriculture, growing yams and plantains, and in some villages rice, cotton and tobacco; only in the fly-free districts such as Katanga and Ruanda where there is also abundant pasture, do they rear *cattle*, which are recently of growing importance. The pygmy tribes, who live by hunting and collecting wild fruits and honey, are few in numbers.

Until quite recent years the chief vegetable product of the Congo was *wild rubber* collected by the natives, followed by *ivory*, elephants being numerous in the forests. Of greatest importance now are **palm-kernels** and **palm oil**, between 60,000 and 70,000 tons of nuts being collected annually. Even more valuable are the Katanga **copper** mines, situated at Kambove, on the Rhodesian trunk railway, which produce up to 80,000 tons of copper ore annually, besides the world supply of **radium**, and silver-lead-zinc ores. There are also productive **diamond** mines in the Kasai district, and many small alluvial **gold** mines near Kilo in the north-east. *Tin* is now mined at Busanga. Only 1,000 tons of *wild rubber* are produced, but 20,000 tons of *white gum copal* are dug. *Coffee* is indigenous, and is easily cultivated, about 150,000 lb. being produced in 1928. *Cacao* plantations have been successfully established, and some plantation rubber is grown. The native **cotton** industry is being fostered and extended, especially in the Sankuru-Kasai Valley, where there is a ginning factory at Lusambo, and in the Manyema district east of the Congo, with a machine gin at Kibombo. Hand-gins have also been introduced. The output is about 4,000 bales. Elisabethville, with a population which includes 3,000 Europeans, is the

Belgian Congo.

capital of the mining district, and has large smelters and concentrator plants.

Trade Relations.—The greater part of the trade is with Belgium since Antwerp is an established market for colonial produce, but among foreign countries the United Kingdom holds the first place, the total trade with the colony being £5–6 millions, although in trade returns this is largely credited to the African countries through which the goods pass. Cotton piece goods for native trade are the largest class of goods imported, followed by provisions and beverages for the European community. There is also a large import of steamers and ships, machinery, rolling stock, tools, electrical apparatus and construction materials generally, in which the United States and France have some small share. The railways have been built so as to supplement the waterways. The Rhodesian trunk railway enters the country from the south, passing through Elisabethville and Kambove and thence to Bukama on the Lualaba (Upper Congo). A short extension to a more suitable river port will be made. This route brings in Rhodesian meat, and takes part of the mineral traffic. The Lualaba is navigable to Kongolo, where a line is built to Kindu (327 miles) to avoid falls and rapids; thence the river affords a route to Ponthierville, where a line is built to Stanleyville to avoid the Stanley Falls. From this point there is uninterrupted navigation for 1,000 miles to Stanley Pool, where Kinshasa stands, and in this section the Congo receives the navigable Ubangi from the north, and the Sankuru-Kasai from the east. From Kinshasa to Matadi, another section of railway is necessitated by the falls and rapids, and thence the estuary is navigable for ocean-going ships to the ports of Boma and Banana. The last section of the railway, which carries the heaviest traffic, is being improved, and a forward railway policy is in operation. A more direct route to the estuary is now provided by the railway from Bukama to Ilebo on the Kasai river. From the Lualaba, a branch line runs to lake Tanganyika (Albertville), whence steamer connection is possible to the lake terminus of the Dar es Salaam (Tanganyika) railway. Concessions have been secured for the free transit of Belgian goods through this port. The Katanga mining district will shortly find a more direct outlet along the line (British built) which has been pushed inland through the open country on the Zambesi-Congo watershed from the Portuguese port of Lobito Bay. A motor road links the rail river transport system with Rejaf, the port of the Nile steamers. Oil for the use of river steamers is carried by a pipe line from Matadi to Kinshasa. Over 100 vessels ply on the Congo, and motor and air transport have been established.

Boma, the chief seaport, is 50 miles up the estuary, and here the river has a minimum depth of 16 ft. in July.

General Information.—The unit of currency is the Belgian *franc*, and the metric system is in use. The Banque du Congo Belge (with a London office) and the Banque Belge d'Afrique operate throughout the country. The languages of commerce are French and Portuguese. There is a very complete local telegraph and wireless telegraph system, and connection with Brussels is established. Mails reach Léopoldville in 18–23 days, and Elisabethville in 23 days. There is a British Consul at Boma and Vice-Consuls at Elisabethville, Léopoldville and Stanleyville.

BELGIUM

Area and Population.—The Kingdom of Belgium has an area of nearly 11,750 square miles (i.e. it is rather more than one-eleventh the size of the British Isles), and a population of nearly 8 millions, or one-sixth that of Britain. Thus it is very densely peopled, more so, in fact, than any other country in Europe. The increase in population is very slow, owing to the low birth-rate, but there is practically no emigration. In the capital city, Brussels, there are nearly 800,000 people, and in the chief commercial seaport, Antwerp, there are nearly 300,000. Apart from these, only Liège and Ghent, each with over 160,000 inhabitants, rank as large towns, for the bulk of the people live in rural districts, and even artisans frequently possess a cottage and garden or a small cultivated plot outside the city where they work. This dispersal of the workers is facilitated by the low fares charged by the railways. The average trade in the last two pre-War years (1912–13) was £340 millions, or £45½ *per capita*, of which 56 per cent. represented imports and 44 per cent. exports. The ten years since the War have seen a complete recovery of trade, especially since the stabilization of the franc in 1926. The latest figures show a total of £470 millions, with imports slightly in excess of exports.

The customs frontier between Belgium and the Duchy of Luxemburg was abolished on May 11, 1922.

The language of commerce and of educated people in Belgium is French, but the peasantry of the west and north speak Flemish, a language akin to Dutch, while those of the south and south-east speak Walloon, which is akin to French. This distinction of language has its root in a distinction of race, and the “Flemish Movement,” which is anti-French in character, is one of the serious problems of Belgian internal politics.

Position and Climate.—Belgium lies between $49\frac{1}{2}^{\circ}$ and $51\frac{1}{2}^{\circ}$ north latitude and $2\frac{1}{2}^{\circ}$ and $6\frac{1}{2}^{\circ}$ east longitude, marching with Holland, Germany, Luxemburg and France, and having 42 miles of unbroken coast on the North Sea. The climate resembles that of East Anglia, but is rather colder in winter and hotter in summer, besides being somewhat rainier. Thus it is a good climate for agriculture, although not a pleasant one.

General Physical Conditions.—The line formed by the Sambre, together with the Meuse between Namur and Liège, divides Belgium into hill and plain. To the south of this line lie the limestone hills trenched by the picturesque valleys of the Upper Meuse and Ourthe, and behind these rises the high plateau of the Ardenne, thinly peopled and clothed with dense woods, varied by moor and peat bog. The Ardenne falls away towards the French frontier to a second hilly limestone district, important because the rocks are often associated with very valuable iron ores, but the chief productive areas are beyond the frontier, in France and Luxemburg. To the north of the Sambre-Meuse lies the Belgian Plain, of which the greater part is covered with clay and loam and forms a rich agricultural region. Towards the north, however, the soil is sandy, and although much of it has been improved and rendered productive, there remains a large scantily peopled area, the Campine, lying along the Dutch border, of which a large proportion is waste. In the west, a broad belt in West Flanders is very low-lying, and

Belgium.

is kept from flooding only by a network of canals and dykes, so that it resembles the Dutch polders. Here the soil is alluvial. The whole of the plain is drained by the Scheldt and its tributaries, the largest of which—the Lys—joins the main stream at Ghent. The estuary of the Scheldt is in Dutch hands, and hence Antwerp can only be approached through foreign waters. Ghent suffers from the same disadvantage, for it is connected by a ship canal through Dutch territory with Terneuzen on the Scheldt.

Human and Economic Conditions.—Except in the sandy Campine, and on the bleak plateau of the Ardenne, the soil of Belgium is everywhere very thoroughly cultivated, and agriculture is of great local importance. Nearly the whole of the devastated area is once more under cultivation. The farming is of a mixed character, nearly equal areas being devoted to corn crops and green crops (including permanent pasture), while roots cover about one-fifth the total acreage. These include *beet-root*, yielding normally some 300,000 tons of **sugar**, which is largely refined locally, and of which about half is available for export, as is part of the **flax** crop, noteworthy as being the basis of the famous Flemish linen-weaving industry. The local production of some 10,000 tons of *tobacco* largely supplies the home market. Market-gardening is extensively carried on by the numerous small-holders, success being ensured by the density of the population, coupled with cheap transport by rail or light railway, which allows of ready marketing. There is a surplus of *eggs*, *vegetables*, *hops* and *fruit* for export to Britain. Belgium is self-supporting as regards 80 per cent. of foodstuffs, but there is an import of grain, meat and dairy-produce. *Horse*-breeding is of great importance, however, and the heavy Brabant cart-horses and Flemish horses are exported. Lighter horses and horses for food are imported in large numbers, especially from Great Britain. The co-operative movement is strong among Belgian cultivators and stock-breeders, and is a contributory factor to the normal prosperity of the agricultural population.

As far as external trade is concerned, Belgium is of importance as a manufacturing country, the basis of her wealth being the extensive and rich **coal**-field of the Sambre-Meuse area, which runs under Mons, Charleroi, Namur and Liège. There is also a large coal-field underlying the Campine area, in the province of Limburg, of which the reserves are estimated as far greater than those of the southern field. The exploitation of the Campine coal is as yet only begun. The present output of Belgian coal is about 27 million tons, and this is readily supplemented from the Westphalian coal-field in Germany. Belgium is rich in coking coals, and there is a large manufacture of *coke* (5–6 million tons), as also of *briquettes*. The Campine field is chiefly of long-flame coals, and hence should eventually attract glass-works, rolling-mills and other industries for which this type of coal is required.

Although there are considerable reserves of *iron* ore, both on the Sambre-Meuse coal-field and in the Campine (bog iron ore), the output is very small, since the abundant Luxemburg ore (minette) is so readily imported, while pig-iron is obtained from Germany and France. Spanish and Norwegian ores are also smelted.

The mining of **zinc**, which is found in the neighbourhood of Liège, has also declined to an inconsiderable amount, but nearly half a million tons of foreign (largely Australian) ores are imported and treated in the zinc works which are situated on the coal-field. Belgium ranks next to the United

Belgium.

States and Germany as a producer of spelter (1928, 209,000 tons). About 80,000 tons of *lead* are also produced.

The Hainaut quarries yield a limestone *building-stone* known as *petit granite*, which is exported to neighbouring countries and even overseas, and there is abundance of *slate*. The limestone which crops out along the Meuse valley provides material for a considerable *cement* manufacture.

The **iron** and **steel** manufacture and engineering industries of Belgium are of first importance, the present output of pig-iron and steel being about 4 million tons in each case, produced by 54 blast furnaces and 68 iron

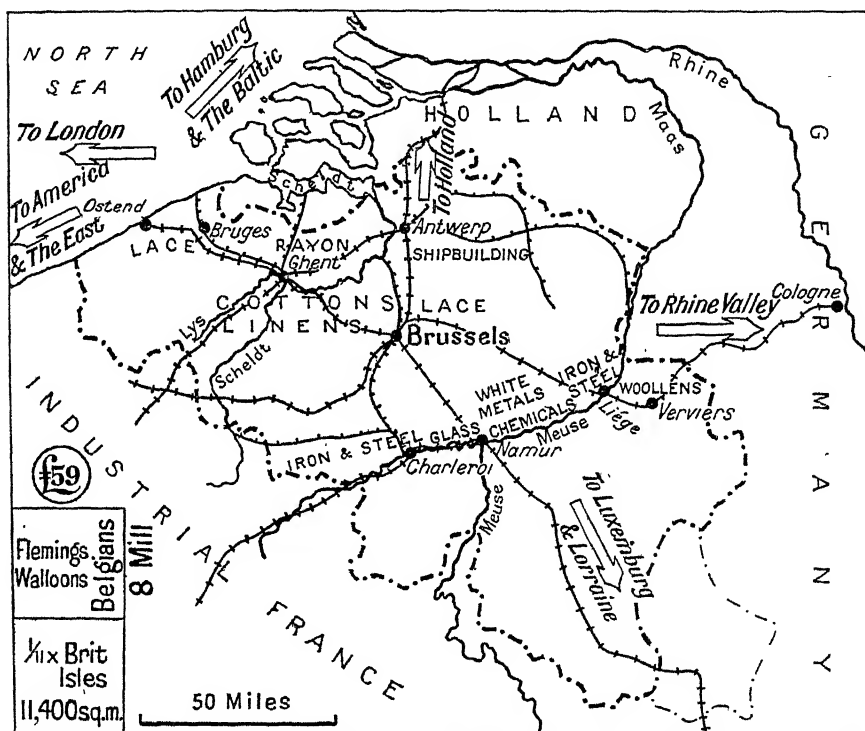


FIG. 13.—BELGIUM: INDUSTRIES.

and steel mills. The country competes with Great Britain in heavy steel goods, e.g. locomotives, railway- and tram-cars, engines, steel bridges, etc., but British textile and other machinery is largely imported.

The *textile* manufactures of Belgium are of considerable importance, the **cotton** and **linen** industries being established in Flanders, especially in Ghent and its vicinity. Courtrai, on the Lys above Ghent, is the famous centre for the retting of flax. Raw cotton and cotton yarn to the value of £8 millions, and raw flax to the value of about £4 millions, are imported, and the exports of flax yarn and of cotton manufactures (largely fancy fabrics) amount to about £4 millions in each case. There are minor manufactures of hemp, jute and silk, particularly *artificial silk* and sewing silk. *Lace-*

Belgium.

making is an important handicraft employing 50,000 women, including many living in convents.

Antwerp is a very considerable market for foreign **wool**, notably from Australia and Argentina, the import (largely for re-export) averaging 150 million lb. An old-established woollen industry at Verviers, in the Vesdre valley on the margin of the Ardennes, now makes use of imported wool, for the number of sheep on the hills has greatly declined. Cheap fabrics of mixed wool and cotton are manufactured and retained for home consumption, while woollen and worsted yarns are exported to the value of £2½ millions.

The **glass**-works of Belgium are of great importance, the town of Charleroi (on the Sambre-Meuse coal-field) being the greatest plate-glass centre in the world. There is abundance of suitable sand in the Campine area, and there are very numerous chemical factories on the coal-fields. Plate-glass, window glass, mirror-glass and general glass-ware to the value of £4 millions annually are exported, and the temporary closing of the Belgian factories led to a remarkable expansion of the Japanese window-glass industry. The **paper** industry, dependent on rags and imported wood-pulp, was growing before the War, and yields a surplus for export. **Matches** are made on a large scale for export. Industries which mainly supply the home market are earthenware, pottery and *chemicals*, including chemical manures, for which the local demand is large, besides the milling of oil-seeds (linseed and colza being locally grown) and soap and margarine manufacture. The *diamond-cutting* industry, localized at Antwerp, and dependent mainly on South African stones, employs about 5,000 persons.

Some indication of the renewal and eventual increase of commercial activity after the War stoppage is given by the tonnage entered and cleared at the Port of Antwerp, which reached 13 million tons in 1913, 15 million tons in 1922, and 23½ million tons in 1928.

Trade Relations.—The fact that Belgium is linked up with France, Germany and Holland, not only by a network of railways, but also by an excellent canal system, gives to Antwerp, the focusing-point of these lines of communication, a large entrepôt trade. Besides coal, large quantities of grain, minerals, bricks, cement, timber and so forth are moved by canal. Goods in transit amount to about £100 millions in each direction, Antwerp being a competing point with Hamburg, Rotterdam and Havre for the landing in bulk of grain, wool, hides, rubber, oil-seeds and similar commodities from America, the Tropics and the Far East. Belgium is, of course, by no means wholly self-supplying as regards manufactures, fine cottons, woollens and linens coming from the British Isles, besides machinery and such highly specialized goods as scientific instruments; machinery and motor-cars come from the United States; fine chemicals and dyes from Germany; wines, millinery and luxury articles from France, and so on. Belgian manufactures, especially iron and steel goods, locomotives, trams and glass-ware, find markets all over the world, and notably in Brazil. Six countries account between them for two-thirds of the external trade of Belgium. Three are her neighbours—France, Germany and the Netherlands: the remaining three are Great Britain, the United States, and the Argentine Republic. It is worth noting that while France takes the first place in supplying Belgium with foreign goods, Britain has lately been the chief purchaser of Belgian products. This is mainly due to very

Bermuda.

heavy purchases of iron and steel bars and billets, which are in competition with the output of English furnaces. Germany holds the second place, both as regards the import and export trade, while the Netherlands and the United States are rivals for the fourth and fifth places. Imports from the Argentine, in the shape of meat, grain and linseed, are more than double the exports to that country, but Belgian manufactures are finding an expanding market in South America. According to the Board of Trade returns British imports into Belgium have decreased since the pre-War period, while exports to Britain have more than doubled in value. Ghent and Bruges, both connected by ship-canal with the sea, are secondary Belgian ports, the former handling a good deal of raw cotton. Ostend is the packet station for Dover, and there is a train-ferry connecting Zeebrugge with Harwich. The electrification of the railway system has been commenced.

General Information.—The unit of currency for foreign exchange in Belgium is (since 1926) the *belga* of par value 35·00 to £1 sterling. The actual currency is still in terms of francs. The National Bank of Belgium is authorized to issue notes, and other leading banking establishments are the Banque Belge pour L'Etranger and the Crédit Lyonnais, both with London offices. Lloyds and Westminster Foreign Banks have branches at Brussels and Antwerp. Mails reach Belgium in one day.

The metric system of weights and measures is in use. There are British Vice-Consuls at Brussels, Charleroi, Ghent and Ostend, a Consul at Liège, and a Consul-General at Antwerp, besides a British Commercial Secretary at Brussels. Belgium is a member of the League of Nations.

BENGAL

See **India**, p. 255.

BERMUDA

Area and Population.—Bermuda is a British Crown Colony, administered by a Governor. The islands, numbering about 360, are very small, the majority being uninhabited; they cover an area of 19 square miles, and support a total population of 30,000, of whom about half are whites, and the remainder negroes or coloured. This population is doubled in the winter months, the islands being a favourite tourist resort for Americans. The chief town, Hamilton, has a population of under 3,000. The total foreign trade is about £1½ millions, of which 80 per cent. represents imports. This is due to the dependence of the islands upon the tourist industry and to the fact that it is a coal and oil bunkering station, and has repairing docks. Bermuda is also an important naval base, but the figures given exclude Government stores.

General Conditions.—Bermuda lies in the North Atlantic Ocean, nearly 700 miles to the south-east of New York, and about half-way between Nova Scotia and the West Indies. It is in nearly the same latitude (32° N.) as Madeira, and has the same warm and sunny winter

Bismarck Archipelago.

climate. The principal export is, therefore, *early- and fresh vegetables*, chiefly potatoes, greens, and onions, for the New York market. Practically all the trade is with the United States, apart from a small import from Canada and the British Isles. There is a market for luxury articles. There are two local banking establishments—the Bank of Bermuda and Messrs. Butterfield & Son. The currency, weights and measures are British. There is cable connection with Halifax (N.S.) and with Turks Islands and Jamaica. Mails reach Bermuda in 9–14 days. The Colonial Secretary acts as Imperial Trade Correspondent.

BESSARABIA

See **Rumania**, p. 375.

BHUTAN

Area, Population and General Information.—Bhutan is an independent sovereign State, covering an area of about 18,000 square miles, and having a population of 300,000. The small trade is entirely with India, and is in native hands. Bhutan lies on the southern flank of the Himalayas, between Tibet and India, and is extensively forested. The people live by agriculture and native handicrafts.

BISMARCK ARCHIPELAGO

Area and Population.—The Bismarck Archipelago, formerly administered with German New Guinea, has, like the latter, been placed under the Mandatory Power of Australia as part of the territory of New Guinea. The islands, including New Britain, New Ireland, New Hanover, the Admiralty Islands and Matthias Group, cover about 18,000 square miles, and have a population of 120,000. Whites number under two thousand, and of these 1,300 live at Rabaul in New Britain, the chief town and seaport, and the seat of Government of the whole Territory. The natives are Melanesians, resembling rather the African negroes than the people of Polynesia. They are of sturdier physique than the latter, but less intelligent. Cannibalism and head-hunting are still common. The pre-War trade for the whole of German Melanesia (including Papua and the Solomon Islands) was only about £ $\frac{1}{2}$ million in each direction, but it has greatly increased in value, and now approximates to £3 millions.¹

Position, Climate and General Physical Conditions.

—The Bismarck Archipelago are mountainous islands, lying between the Equator and 7° S. latitude, hence the climate is uniformly hot, and torrential rains fall during the season that the sun is south of the Equator. From May to September (south-east monsoon) it is comparatively dry. The islands are very unhealthy for whites unless sanitary precautions are observed, malaria being prevalent. The soil is fertile, and the islands are forested with palms, bamboos, banyans, rubber, creepers, and other tropical growths.

¹ For Map see New Guinea.

Bolivia.

and the rains occur in the summer months only, hence the region is a *llanos*, or grassland (*campos* in Brazil). The lower ground to the north is part of the Amazonian Plain and owing to the combined heat and moisture is densely forested, especially along the river banks. On the lower ground to the south, which is nearly 20° from the Equator, the heat is less, especially in the winter months, and the rainfall is low. This forms part of the Chaco region, where coarse pasture and thorny shrubs predominate, with a light timbering of hard-wood trees.

The slopes of the Andes overlooking these Plains, known as the *yungas*, are drenched with rain in summer, and are clothed with forest, varying from tropical, with palms, through sub-tropical, with cinchona trees, to temperate forests, above which are the bleak *paramos*. The plateau, hemmed in by mountains, has only a light rainfall, and owing to the elevation, the air is cool. The sun however is powerful, and there is a very great difference between sun and shade temperatures. At night, frosts are frequent. This region is known as the *punas*, and is practically treeless, the natural vegetation being tufts of coarse grass and hardy weeds. It is the natural home of the llama, the alpaca, and the now rare wild vicuña, which graze at different altitudes according to the season.

Human and Economic Conditions.—The outstanding product of Bolivia is that yielded by its mines, all of which occur in the mountain zone, usually above the limit of cultivation. Until recent times **silver** was the metal of greatest importance, for it had been worked since the Spanish conquest in the famous mines of Potosi and elsewhere. The demands of modern European industry, however, have made it more profitable to work such useful ores as tin and copper, and the output of silver is much diminished. The export of **tin** is worth about £6 millions annually, and Bolivia ranks second only to Malay as a source of this metal. During the last few years, **antimony** (4,000 tons) has taken the second place, followed by **copper** (8,000 tons) and **wolfram** (tungsten ore) (80 tons). The fact that the ores are very largely transported from the mines on the backs of llamas and mules adds very greatly to the cost of production. Hence only the more accessible lodes and more valuable ores are worked, and the output of all the metals mentioned, together with that of zinc, lead, molybdenum and bismuth might be greatly increased. There are also unexploited *oil* resources of considerable magnitude east of the Andes.

All the plateau towns are mining centres. Besides La Paz and Potosi there are Cochabamba (population 44,000) and Sucre, both situated in deep valleys in the eastern part of the mountain zone, and Oruro, the leading tin centre, between Lakes Titicaca and Poopo. Corocoro and Colquechaca are rapidly growing mining centres. The main railway line runs from north to south over the plateau. Starting from La Paz, it passes through Viacha and Oruro, and then to Uyuni, where it turns south-westward and descends the Andes to the desert port of Antofagasta in Chile. Branch lines from this railway run to Cochabamba (from Oruro), to Potosi and to Huanchaca. The plateau section has lately been extended southward via Uyuni and Tupiza (the second tin centre) to the Argentine frontier, where it is linked with the Argentine railway, which goes via Jujuy to Buenos Aires. Northward from La Paz the line is carried to Guaqui, a port on Lake Titicaca, on which steamers ply in connection with the Peruvian railways. A railway runs also from La Paz directly to the Chilean port of Arica, with a branch to

Bolivia.

the Corocoro copper mines. Many of the chief towns, for example Sucre, are, however, still without railway communications, and even where these exist, the freights are necessarily high, for the cost of construction in such difficult country has been great, and all coal must be imported from abroad. The nearest supplies are from Chile, and other sources are New South Wales and Great Britain.

The future of Bolivia must depend largely upon the wise development of its abundant water-power. The mines and the railways should be electrified, and the extraction of metals from their ores carried on by electrical processes. The Bolivian Government is already promoting a comprehensive scheme, but a large capital expenditure is necessary, and some years must elapse before large hydro-electric installations are in active existence. The total revenue of the country is only about £4 millions per annum.

The subsidiary industries of the plateau are the rearing of *llamas* for beasts of burden, of *alpacas* for their wool, and of *sheep* for wool and meat. Such food-crops of temperate climates as barley, beans and potatoes are grown for local consumption. The eastern mountain slopes and deep valleys with their hotter climate offer greater agricultural possibilities, being suitable for maize, vines, coffee, cacao and so on. The *yungas* yields cinchona, and *coca* (for cocaine), while down on the Plains there is a fair output of *rubber* from the northern forest section. This rubber is taken to Riberalta on the river Beni, and put on the Madeira-Marmoré railway, built by an American Company for Brazil to avoid a great series of falls and rapids, below which (at Porto Velho) the cargo is transferred to a river steamer and shipped down to Para. The rising central section of the Plains, the Santa Cruz district, has some *cattle*, and is suited to the development of the stock-raising industry on a very large scale, but the pastoral as well as the agricultural industries of eastern Bolivia await improved means of communication and the investment of foreign capital. Corumba, a Brazilian frontier town, on the line from Santos, is the nearest rail-head.

Trade Relations.—The total foreign trade of Bolivia amounts to some £14–17 millions annually, and the United Kingdom, as a large purchaser of tin for tin-plates, takes more than half the export. During the war years larger purchases were made by the United States, and to-day the tin goes eventually to the States after being smelted on the South Wales coal-field. Britain, however, takes only the second place in supplying the manufactured goods that Bolivia needs, the United States coming first. German traders, who had a very strong footing in the country previous to 1914, now supply 11 per cent. of the imports, as against 28 per cent. from the United States, and 20 per cent. from Britain. Chile supplies 10 per cent. The exports from Bolivia are greatly in excess of the imports, the difference largely representing interest on foreign capital and foreign loans, more than half the public debt being external. Tin represents about two-thirds of the total exports, lead and rubber each about 5 per cent.

General Information.—The monetary unit is the gold *boliviano*, the rate of exchange being fixed at 13·333 bolivianos = £1. The principal banking establishments at La Paz are the Banco de la Nacion Boliviana and the Banco Central de Bolivia, with agencies in London. The metric system is in official use, but the old Spanish weights and measures are

Brazil.

popularly employed. These include the *quintal* of 101 lb. and the *arroba* of 25 lb. The language spoken is Spanish, and the religion of the State is Roman Catholic. Mails take about a month to reach La Paz, or 3 weeks by air mail. Marconi Co. are responsible for posts and telegraphs. There are British consular representatives in the leading towns, including La Paz, Oruro, Sucre and Potosi, and a Commercial Secretary is attached to the Legation. Bolivia is a member of the League of Nations.

BORNEO, BRITISH

See **British Borneo**, p. 68.

BORNEO, DUTCH

See **Dutch East Indies**, p. 152.

BOSNIA

See **Yugoslavia**, p. 463.

BRAZIL

Area and Population.—The United States of Brazil have an area of $3\frac{1}{4}$ million square miles; that is to say rather greater than that of the United States of America. The population, however, is less than one third that of the Republic of the sister Continent, the number of Brazilians being 42 millions (estimate). Broadly speaking, whereas the North American States lie wholly in the temperate zone, Brazil is essentially a tropical country: one, therefore, in which Nature places many great obstacles in the path of development. Hence, although Brazil was settled by the Portuguese more than 400 years ago, the value of its foreign trade is only about 10 per cent. of that of the States. Yet a few decades should see this disparity very considerably reduced, for as regards area, resources, and population, Brazil is the premier Republic of South America. At present, its total foreign trade is second only to that of Argentina but fell from £7 a head in 1920 to less than £5 a head in 1926. It now averages £170 millions. There is a notable concentration of the population of Brazil in great cities. These include the capital, Rio de Janeiro, with over $1\frac{1}{2}$ million people, São Paulo ($\frac{1}{2}$ million), Bahia (350,000), Para or Belem (275,000), Pernambuco (216,000) and Porto Alegre (150,000). There is a considerable immigration from the western Mediterranean (Spain, Portugal, Italy) and from Germany, amounting to about 100,000 persons annually.

Position and Climate.—Brazil lies wholly to the east of the Andes, stretching across the widest part of South America, and having an outlook to the Atlantic Ocean. No part of the country is so far west as New York, and the mouth of the Amazon is less than 4,000 miles (ten days' sail) from Southampton. As regards latitude the country extends from about 10° north of the Equator to 33° south, but it is broadest in the torrid

Brazil.

zone, narrowing down to an average width of about 300 miles outside the Tropic of Capricorn. The extra-tropical region is, notwithstanding, considerably larger than the British Isles, and as regards situation and climate may be compared with Natal or New South Wales.

In the low-lying Amazon basin, and along the tropical coastal plains, drenching rains, coupled with a uniformly high temperature, occur at all seasons of the year. On the higher ground to the north and south of the flood plain of this great river, there are hot regions having a season of drought at the winter solstice, and abundant rains in summer. In the vicinity of the southern tropic the climate may be described as of the warm-temperate type, with plentiful rains during the greater part of the year; this area somewhat resembles Southern

China, Rio de Janeiro having the latitude of Canton. In the projecting north-east angle of Brazil, behind the coast ranges and near the São Francisco valley there is an area of decidedly low rainfall, which is occasionally subject to severe drought; but Brazil as a whole suffers from no deficiency of moisture, and has no irrigation problems to deal with. It has the further advantage besides that much of the area lying within the tropics, where excessive

heat might be expected, is raised to such an elevation that the temperature is considerably modified, as is the case for example in Rhodesia.

Physical Conditions.—A region of Brazil that stands out as a well-marked unit is the great plain of the Amazon, stretching from the foot of the Andes to the sea, and drained (or sometimes flooded) by the main channel of the Amazon, assisted by the Rio Negro on the left bank, the Purus and Madeira on the right, to name but three of its many majestic tributaries. The plain is bottle-shaped, being narrowed to a neck near the river's mouth by the Guiana Highlands to the north and the Brazilian to the south.

The Brazilian Highlands are an outstanding feature of the topography of the country. They rise abruptly from the Atlantic coast, the edge of the tableland appearing from the sea as a series of mountain ranges, the Serras. On the landward side, however, there is not a steep drop, but a long gentle slope towards the interior. In consequence of this tilt of the tableland

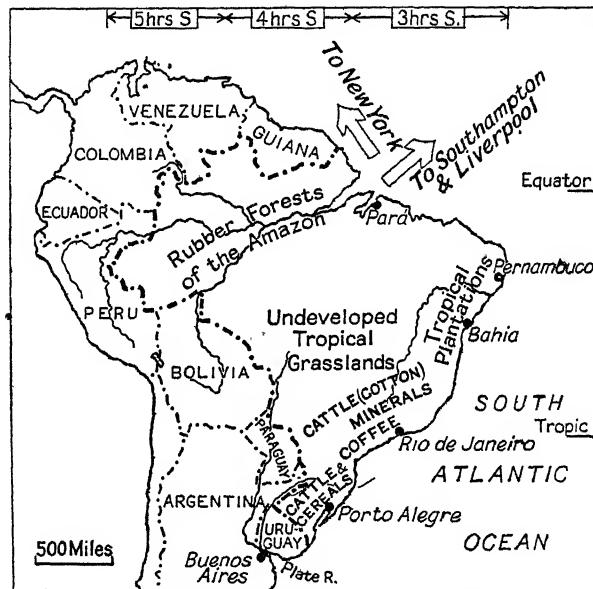


FIG. 15.—BRAZIL: CHIEF ECONOMIC REGIONS.

Brazil.

away from the Atlantic, the rivers have difficulty in reaching the sea. The São Francisco flows northward, parallel to the coast, for nearly a thousand miles, and then, making an abrupt bend eastwards, plunges by a series of falls down to sea-level. The Parana flows southwards, also parallel to the coast, until it crosses the frontier, while a third, and smaller river, the Parahyba, takes an eastward direction parallel to the section of the coast that runs from west to east and is broken by the harbour of Rio de Janeiro. In the interior of the tableland, the Uplands of Matto Grosso form a divide from which the waters are sent northward to the Amazon and southward to the Paraguay-Parana system. Consequently, apart from the Amazon,

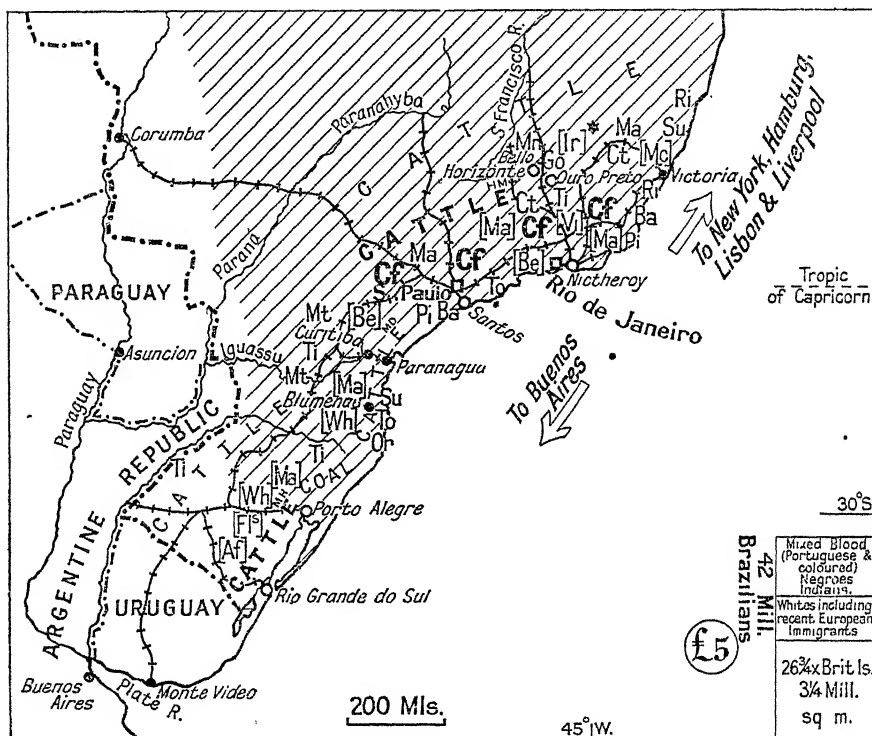


FIG. 16.—SOUTHERN BRAZIL.

there is no great riverine or estuarine entry into the heart of Brazil, and the development of the interior is correspondingly handicapped.

Although the tableland, with its abrupt seaward slopes, offers a barrier to communication, it is in other ways a useful asset to the country. The climate of the elevated regions is pleasant and healthy, and the rivers that descend the steep slopes of the Serras to the sea are capable of providing driving power for enormous hydro-electric installations, of which several are already in existence.

The greater part of Brazil is still clothed with its natural wild vegetation. Dense forests of palms, hardwoods, dyewoods, nut-bearing and rubber-trees, laced together by a tangle of creepers and parasitic plants, cover the Amazon-

Brazil.

ian lowlands. These are the *selvas*. Wherever the ground rises well above flood level the forests are more open, and on the Guiana and Brazilian Highlands the characteristic vegetation is a tropical grass land, the *campos*, with scattered palm trees and thorn-bushes, and gallery forests along the river sides. In the dry north-eastern district, and on the poorer soils generally, the grassland is replaced by thorn forests known as *caatinga*. The wet Atlantic slopes of the highlands are clothed with virgin forest, and in the Parana basin there are sub-tropical woodlands of evergreen trees and shrubs, including the *yerba maté* or Paraguay tea. Towards the south, open woods of the *araucaria* or Brazilian pine (now a timber tree of commerce) occur, and there are large areas of temperate grassland, the *campinos*, which are of a similar character to the *pampas* of Argentina. The *campos* resembles more the savannah lands of Africa, as found in Nigeria or Uganda. Naturally there is no abrupt boundary between forest and grassland, but the woodlands gradually thin out in the directions in which the rainfall diminishes.

Human and Economic Conditions.—Since the great navigable river of Brazil, the Amazon, leads only into the heart of the virgin forest, while elsewhere the edge of the tableland walls off the interior, it is natural that the population should be largely grouped about a few favoured centres along or near the coast. Of these, Rio de Janeiro, the largest city, has the greatest natural advantages, chief among them being its magnificent land-locked harbour. Standing almost on the Tropic of Capricorn, it is within the region of tropical luxuriance of vegetable growth, yet is free from the oppressive excesses of heat and moisture found in the *selvas* region. Moreover, as the *Serras* rise up steeply behind the coast, districts enjoying the combination of pleasantly cool air and hot sun, are readily accessible. Apart from the advantages of its immediate surroundings, Rio owed its prosperity to its commerce in three valuable commodities—coffee, gold and diamonds. The two latter came from the interior tableland, being the products of the State of Minas Geraes : with their small bulk and high value, the expenses and difficulties of transport were a negligible factor. For the **coffee** plantations, the parallel mountain slopes (the *Serras*) behind Rio offered an ideal situation. Patches of virgin forest were cleared, and the shrub planted in the rich vegetable mould that was the accumulation of ages. The coffee berries were sufficiently valuable to bear the cost of transport on pack-mules down the mountain paths, while, with but little effort, cattle, pigs, grain, fruit, and vegetables were raised on the plantations to supply cheap food for the negro slave labour that was employed until 1889. Since 1857 there has been a steady development of the railways, with Rio as focus, and as a result, not only has coffee planting enormously increased, but it has become possible to market the locally grown foodstuffs, which at one time were only consumed or wasted on the *haciendas*. Hence stock-raising and general farming have developed very considerably, the crops including *rice, manioc, maize, beans, tobacco, sugar, vines, oranges, pineapples and bananas*. The railways were soon carried inland to the mining districts on the tableland. Here are found the natural pastures, or *campos*, interspersed in the south and east with much scattered woodland. Hence as a result of the improved means of transport, stock-raising on a large scale was pursued, and in recent years the herds of Minas Geraes have been steadily improved by the importation of pedigree bulls from Europe.

Brazil.

tain railway connects it with its seaport, Santos (population 40,000), which has a coffee export double that of Rio.

So long as Brazil was dependent for prosperity upon her comparatively short-lived and irregularly productive gold and diamond mines, and upon the single crop, coffee, subject to failure in bad years, and to falling prices in good years, the country passed through cycles of trade inflation and of acute depression and even widespread ruin. The old mines, although now relatively unimportant, served to draw a population into the interior, and the subsequent growth of varied subsidiary agricultural and pastoral industries has had a stabilizing effect upon the economic position of the community as a whole.

Second only in importance to the region just described (the coffee belt and its hinterland) is the north-eastern coastal belt of Brazil, with the two great seaport cities, Bahia and Pernambuco. The former stands on a fine land-locked bay, while the latter has a natural breakwater in the shape of a coral reef. To the south and north, respectively, of Pernambuco, are the secondary ports of Maceio (68,000) and Parahyba (32,000). This coastal belt lies within 15° of the Equator, and is essentially a plantation region, for both heat and moisture are abundant through the year. **Cotton, sugar, cacao, tobacco,** and *coffee* are among the more valuable crops, while *rice*, manioc, bananas and so forth are widely grown for local consumption. The Brazilian sugar output averages $\frac{3}{4}$ million tons, and that of rice is about the same. The region includes the lower São Francisco valley. This river is broken by falls where it leaves the tableland, and a short length of railway joins the two navigable reaches. Direct lines from Bahia and Ceara meet at a point on its banks above the falls. The tableland behind this coastal region (the *sertão*) is comparatively little developed, but **cattle** are reared on the *campos*, rubber, wax and timber are obtained from the wooded valleys, and the crops include cotton, tobacco and manioc. The northern coast, from C. San Roque to the Amazon mouth, is developed on similar lines to the north-east coast, but the climate conditions are less favourable owing to recurrent droughts. The chief cities are seaports, and have short lengths of railway running inland, but no connecting lines. Ceara (Fortaleza), the largest, has a population of 70,000, while next in importance is Maranhão (S. Luiz, population 58,000), followed by Parnahyba, situated between the two.

The third region of economic importance, isolated as are the first two, is the Amazon Basin. This is practically a "one-crop" region, dependent entirely upon the collection and export of wild "Para" **rubber**. The best quality (hevea) rubber comes from trees which grow in the belt annually flooded by the upper Amazon and its confluent, and up to the present it still commands a higher price than the plantation rubber of the East. Since 1912, however, the supplies of the latter have increased until they far exceed the wild supply. The growing consumption has kept pace with the output, but the Brazilian merchants are considering how they can effect improvements in collection, preparation and transport, which will enable them to maintain their position in future. Attention is being paid also to secondary crops, among which *cacao* is of some importance, the equatorial climate being exactly suited to its requirements. Cotton, too, could be grown with success. The special *timbers* of tropical Brazil are only exported on a small scale, but shipments show an increase, as do those of *Brazil nuts*. *Cattle* are reared in places where, owing to a sandy soil, grasses locally replace the normal

Brazil.

forest growth. *Rice, manioc, maize*, and other foodstuffs are also being more carefully grown, and the result should be a lowering of the cost of living in the "rubber cities" which have hitherto imported a large proportion of the necessities of life.

These cities are two. Para, the ocean port, stands at the mouth of the Amazon, in the channel behind the island of Marajo. Manaus, the river port, stands on rising ground at the junction of the Amazon and the Rio Negro, and not far above the confluence of the Madeira, these rivers affording waterways to the north and south of the basin respectively. River steamers can follow the main stream to Iquitos, the rubber port of Peru, 2,200 miles from the sea. Para (Belem) has 230,000 inhabitants, i.e., it is about as large as Hull, while Manaus has 75,000, equal to the population of York. Both are magnificently built modern cities, and the careful attention given to water-supply and sanitation keeps them comparatively free from the tropical diseases and fevers usually associated with the equatorial lowlands. An interesting feature of the development of the Amazon basin was the early establishment of a series of wireless stations for local intercommunication, the ordinary posts and wires being a practical impossibility in the virgin forest.

The fourth, and most recently developed, economic region of Brazil, and possibly that of greatest interest to British people, is the south, the extra-tropical States, Parana, Sta. Catharina and Rio Grande. The largest city, Porto Alegre, with well over 150,000 inhabitants, lies in latitude 30° S., almost exactly that of Durban in Natal. It is to this part of Brazil that the greater number of European emigrants, other than Portuguese, have been attracted, and there are a number of flourishing German settlements, e.g. Blumenau, these nationals and their descendants totalling over half a million. The country is of a hilly character, and is drained inland to the Uruguay River, which forms the western frontier. The vegetation includes open woodlands of Brazilian pine, varied by stretches of grassland (the *campos*), giving place to forests yielding *yerba maté* in the west. Hence the eastern section resembles Uruguay in being a stock-raising area. The number of cattle in Rio Grande do Sul, the principal State, is over 6 millions, about half a million more than in Minas Geraes. At Porto Alegre, and at other centres in the stock-raising regions, there is a large industry in the preparation of charque, or jerked beef, which forms part of the daily food of the labouring population of Brazil. The shortage of meat during the European war led to the establishment of a Brazilian meat-packing industry on a firm basis. Besides the establishments in Rio Grande do Sul (e.g., at Pelotas, a town behind the port of Rio Grand), there are several plants at or near São Paulo, at Santos, and in Minas Geraes. The value of meat and by-products exported from Brazil in 1918 amounted to £13½ millions, of which £4½ millions represented hides and leather, the remaining £9 millions frozen, tinned and dried meat, lard, etc. This was, of course, an abnormal year, but the present surplus of meat for export is valued at £2 millions, that of hides and skins at £6½ millions. The existing herds of cattle in Brazil are capable of great improvement in weight and quality by the introduction of blood-stock, while there are thousands of square miles of *campos* in the interior which could carry cattle, e.g., in Goyaz, Matto Grosso, and in the extreme north of Amazonas. The chief danger to be fought is disease among the herds, while lack of co-operation between breeders, slaughtermen and

Brazil.

packers may check development. As has been the case in Argentina, the need for foodstuffs to fatten stock will stimulate agriculture in the better watered parts of the stock-raising States. Sta. Catharina grows *maize* and rears *pigs*, while Rio Grande do Sul grows *maize*, *wheat*, *linseed* and *alfalfa*, although at present enormous quantities of grain are imported from Argentina and Uruguay. In all the stock-raising areas, however, an extension of transport facilities is very much to be desired. Nowhere is there a close railway network like that of Argentina. Dairying and pig-breeding to supply the home market with butter, cheese, bacon and lard are carried on in the south of Minas Geraes, and in the east of the States of Parana and Sta. Catharina. This industry, too, could be very greatly extended.

Trade Relations.—The coffee exported from Brazil is still about ten times as valuable as any one other commodity sent abroad, and it is only in abnormal years that it has accounted for less than half the total export trade. The products of the cattle-rearing industry, and of the cacao plantations, have ousted rubber from the second place, and this commodity now ranks only third or fourth. The yearly value, however, both of coffee and of rubber, shows great fluctuations, and latterly the coffee export has increased by 50 per cent. to over 1 million tons.

The world shortage of sugar prompted an increased production and export of this crop, once mainly consumed locally, and other valuable staples are cotton and tobacco. Of about equal value to the export of the last named is that of yerba maté, which is marketed mainly in other parts of South America. Since it grows in the middle and lower Parana basin it is one of the staples of the State of Parana and its capital Curityba.

Cotton has normally only a small export value, for the bulk of this widely grown crop is spun and woven in local mills. The cotton manufacture is the most important in Brazil. In a country where cotton clothing is practically universal, it meets the whole demand for coarse and medium weaves, leaving only the finer qualities to be imported from abroad, a fact of especial interest to Britain. Latterly attempts have been made to market the surplus Brazil cottons outside the Republic, but so far without much success. Hence it is possible that the mills will restrict their output, and that Brazil may become an important source of raw cotton. At present an average of 100,000 bales are yearly put on the foreign market, and with the high prices ruling in 1920 this quantity was valued at over £5 millions, but has now fallen to about £1 million. The United Kingdom and France are buyers.

Another important industry is that of tanning: the millions of cattle supply cheap hides, the indigenous mangrove bark a cheap tanning material. There are also a very large number of tobacco factories and sugar mills, while in the greater cities miscellaneous manufactures are carried on, such as machinery, furniture and paper making at São Paulo, machinery and jute at Rio de Janeiro. The greatest number of cotton mills are at Rio, São Paulo, Pernambuco and Bahia. Matches, for which the Brazilian pine affords raw material, are made at Rio, São Paulo and Curityba.

✓ With the exception, however, of certain classes of cotton and leather goods, Brazil must buy from abroad nearly all the manufactured articles in use in the country. There is a great demand for machinery and metal goods, and especially for motor cars and lorries, which can be used where railroads are wanting. China, glass, silk goods, furniture, wearing apparel, are all in demand, besides coal for industry and transport, although wood is

British Borneo.

very widely used as fuel. The Brazilian coal-fields occur in the uplands behind Porto Alegre and Rio Grande do Sul, and in Santa Catharina, but the output is still small (from 300,000–400,000 tons), nor is this coking coal. Before the War the United Kingdom held the most important place as a source of exports to Brazil, and Germany was then a serious competitor, but the United States had made rapid headway. The latter country, with its big demand for coffee and rubber, was even before the War a purchaser of Brazilian goods to three times the extent of the United Kingdom, while the purchases of the latter country and Germany were approximately equal. To-day the United States takes ten times as much Brazilian produce as does Great Britain, and three times as much as Germany and France combined. The trade of Brazil with the Argentine has also reached considerable dimensions. Havre (France) is an important market for Brazilian coffee, as are Antwerp, Rotterdam and Hamburg, since the continental demand for this commodity is very great. France is also a heavy purchaser of rubber, and French wines and manufactured goods have a considerable vogue in Brazil. Germany has, since the War, been paying great attention to market conditions in Brazil, and has re-established herself in many important lines, e.g., cement, wire, hardware, motor-cars, pianos, agricultural and other machinery. The United States, however, still leads in supplying imported manufactures, with Britain and Germany as close competitors.

The largest vessels can enter and leave Rio de Janeiro harbour at any time, and there are first-class port facilities. Santos harbour accommodates vessels drawing 26 ft. and has up-to-date facilities for rapidly loading coffee. At Bahia and Para there are also good deep harbours, but Rio Grande do Sul is approached across a somewhat dangerous bar, and the lagoon between this port and Porto Alegre is suitable for shallow draft vessels only. Steamers drawing up to 24 ft. can go up the Amazon river to Manaos, a distance of nearly 1,000 miles.

General Information.—The Portuguese language is everywhere spoken in Brazil, but the majority of the population is of mixed birth, the elements being Portuguese, Indian and Negro. The monetary unit is the gold *cruzeiro*, which equals four *milreis*, of a value of 5½*d.*, and the metric system is in official use. The *libra* (pound), the *arroba* of 32½ lb. and the *quintal* of 129½ lb. are also employed.

The British Bank of South America, and the Bank of London and South America have branches at Rio de Janeiro, São Paulo and Porto Alegre, the last-named also at Para. Mails reach Rio in 14–19 days, or by air mail in 9 days.

A British Consul-General is stationed at Rio de Janeiro, and there are Consuls in all the large cities. A Commercial Secretary is attached to the British Legation.

BRITISH BORNEO

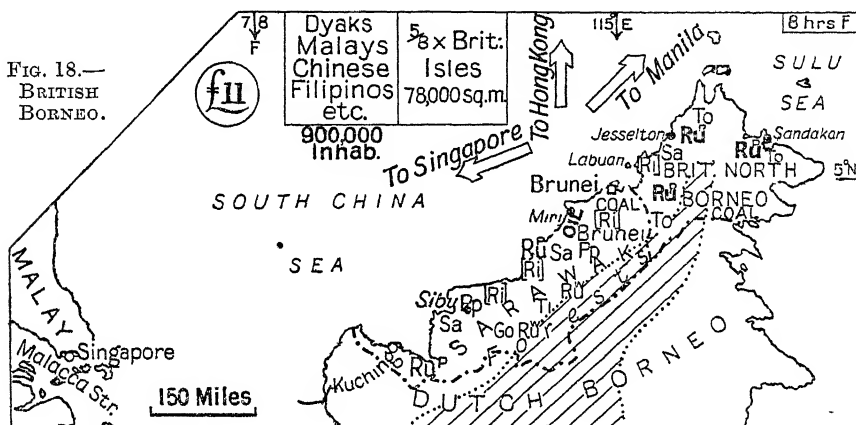
Area and Population.—British Borneo comprises British North Borneo, under the jurisdiction of the Chartered Company of that name, the territory being administered by a Governor; Brunei, administered by a British Resident at the court of the Sultan of Brunei; and Sarawak, governed

British Borneo.

by Rajah Brooke. The total area is about 78,000 square miles, and the population 900,000, of which the majority are settled along the coast, and by the banks of the rivers. The aborigines include the Sea Dyaks and many other pagan tribes, of whom those living in the interior are uncivilized. On the coast, however, there are tens of thousands of immigrant Chinese, besides Malays, East Indians, and Filipinos, who are cultivators, miners, plantation labourers and traders, and on whom, therefore, the development of the country depends. Europeans number a few hundreds only, chiefly plantation owners and officials. Sandakan, Jesselton, Brunei, Miri and Kuching are the chief centres of development. The total trade has recently doubled and averages over £10 millions (more than £10 a head), of which £7½ millions represents exports. The greater proportion is from Sarawak.

Position, Climate and General Physical Conditions.

—British Borneo comprises the northern and north-western parts of the



large island of Borneo, extending inland as far as the main watershed, a mountain range rising in North Borneo to 13,700 ft. The western coast faces the South China Sea, the northern coast the Sulu Sea and Philippine Islands. The territory lies between latitude 7° N. and latitude 1° N., i.e. the climate is of the equatorial type, characterized by abundant rainfall nearly all the year round, and by uniformly high temperature. Dense forests clothe the greater part of the country, and hunting is an important occupation among the tribes of the interior. In position and character British Borneo resembles Malaya, and is physically suitable for development on similar lines. The Rejang River, which flows through Sarawak, is navigable by large steamers which go up to Sibiu.

Human and Economic Conditions.—The pagan tribes cultivate hill (unirrigated) rice and sago, keeping also a few pigs and poultry. The more civilized coast peoples cultivate (wet) rice, sago, pepper, coco-nuts, bananas, sweet potatoes, and so forth. Of these, **pepper** and **sago** have for long been staple articles of commerce, with in addition, *gutta percha*, *timber* (including *ironwood*), *rattans*, *gambier*, *cutch* (from mangrove-bark) and other forest produce. The Dyaks are usually fishermen, and *mother-of-pearl* is also a considerable article of export. British planters at first

British East Africa (Kenya, Uganda, Tanganyika).

directed their attention to **tobacco**, which is grown principally in North Borneo, and of which the export reached a value of over £ $\frac{1}{4}$ million. This product, like pepper and sago, has somewhat declined in output, since the country has been found suitable for the more profitable plantation **rubber**. The value of the yield of this commodity alone is £3 millions sterling, i.e. nearly half the total value of the export trade.

The country is also very rich in minerals, of which *gold* has long been worked by the Chinese. **Coal** exists in very large quantities in all three divisions of British Borneo, and is exploited on the east coast of North Borneo. There are also very valuable **oil**-fields, that at Miri, in Sarawak, yielding a surplus for export, the 1920 output being 1 million barrels, which rose by 1928 to over 5 million.

Trade Relations.—The small ports of Sandakan (Sulu Sea), Jesselton, Brunei and Kuching trade with Manila, Hong-Kong and Singapore, which serve as entrepôts, so that the ultimate destination and source of commodities dealt with is not disclosed. The country offers a market for cotton piece goods, for food-stuffs (including rice and meat), for mining machinery, and for domestic necessities such as hardware, earthenware, and small metal goods.

General Information.—The unit of currency is the Straits Settlements dollar, value 2s. 4d., and the Government of North Borneo issues its own notes and copper coinage. There is a State Bank of North Borneo at Sandakan and Jesselton, and business is done by the Chartered Bank of India, Australia and China.

Communication is usually by water and by bridle paths, in addition to the 127 miles of railway from Jesselton. There is an excellent telephone system, and wireless installations in the chief towns, which also by this means communicate with Singapore. Mails from London take about a month in transit. The Commissioner of Customs and Excise acts as Imperial Trade Correspondent at Sandakan, as does the Resident at Labuan, an island off the coast of Sarawak.

BRITISH COLUMBIA

See *Canada*, p. 95.

BRITISH EAST AFRICA (KENYA, UGANDA, TANGANYIKA)

Area and Population.—British East Africa includes Kenya Colony, the Uganda Protectorate, and Tanganyika Mandated Territory (formerly German East Africa), each administered by a Governor and Commander-in-Chief, and the Zanzibar Protectorate (ruled by an Arab Sultan), which is administered by a British Resident at the Sultan's court. The total territory covers about 741,000 square miles (more than six times the area of the United Kingdom), and has a population of 10 millions, of whom 4 millions are in Tanganyika Territory. An important element in the population is the 60,000 Arabs and Indians, who are mainly settled along the coast and in Zanzibar. They form the wealthy and educated part of the community

British East Africa (Kenya, Uganda, Tanganyika).

apart from the Europeans, and the bulk of the trade passes through their hands. The number of Europeans is about 14,000, and large areas are suited to European colonization. There is a uniform customs tariff in Kenya, Tanganyika and Uganda, and complete freedom of trade exists between them, but Zanzibar at present forms a separate unit. The total trade for the

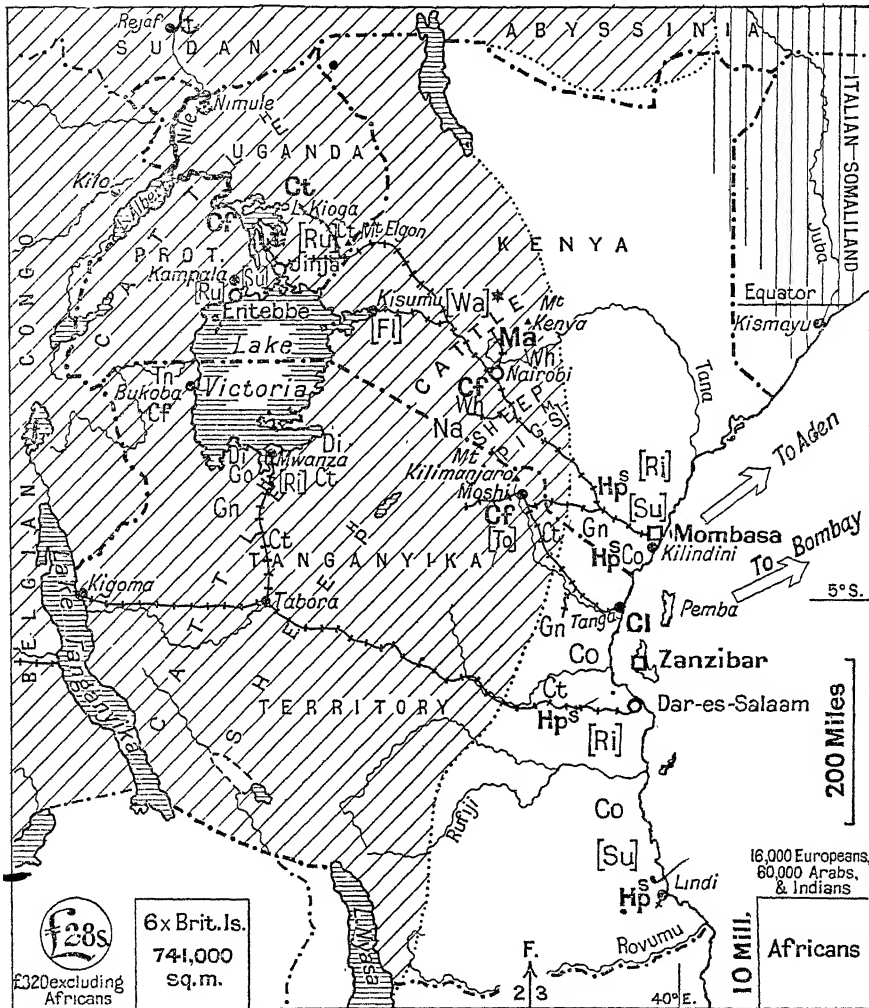


FIG. 19.—BRITISH EAST AFRICA.

region is about £24 millions, or nearly £2 10s. a head, a considerable increase having taken place during the last decade. Of this total, Kenya and Uganda account for £13 millions, Tanganyika for £7½ millions, and Zanzibar for the remaining £3½ millions. Tanganyika has in addition a considerable rail transit trade with the Belgian Congo. The most important towns are

British East Africa (Kenya, Uganda, Tanganyika).

Mombasa, the gateway of both Kenya and Uganda (pop., 40,000); Nairobi, the healthily situated capital of Kenya (33,000); Entebbe, the seat of British Administration in Uganda; Dar-es-Salaam, the capital and chief gateway of Tanganyika (25,000); and Zanzibar, the port and capital of the island of that name (38,000).

Position and Climate.—British East Africa extends from 5° N. latitude to 12° S. latitude, i.e. it lies entirely in the equatorial belt of the Continent. Hence the temperature is excessively high, especially on the coast, and in low-lying districts, but over about half of the interior it is very considerably modified by the height of the country above sea-level, and hence it is the interior (and therefore more difficultly accessible) regions that are suited to white settlement. Elsewhere, tropical fevers are prevalent, while sleeping-sickness has caused a heavy mortality among the native peoples of Uganda. The rainfall is seasonal in character, and only in a few districts is it very heavy, as for example along a narrow coastal strip in Tanganyika Territory. In the northern and north-eastern areas of Kenya Colony there is a decided deficiency of moisture, while over the whole Colony rains tend to be irregular, and in parts of Tanganyika Territory there is also danger of drought. Uganda is on the whole the most favoured region, as being normally free both from excess and deficit of rainfall. The locust plague, which especially menaces Kenya, is being kept in check.

General Physical Conditions.—British East Africa includes the greater part of the lofty lake plateau of Central Africa, rising from 3,000 to 6,000 ft. above sea level, and dotted with great volcanoes (Kenya, Kilimanjaro, Elgon). In the central highland, and extending into each of the territories, is Victoria Nyanza, a piece of water 200 miles long and averaging 150 miles wide. The Nile flows out from its northern (Uganda) shore, to be broken almost immediately by the Ripon Falls; it then opens out into the shallow Lake Kioga, and is navigable to the Sudan frontier. The remaining lakes are of uniform type, long, narrow and deep, and bordered by high mountains. They include Lake Nyasa, on the southern margin of Tanganyika Territory, Lake Tanganyika on the western boundary of the same country, and Lake Albert on the western boundary of Uganda. The last named is also a feeder of the Nile. Lake Rudolf, between Uganda and Kenya Colony, lies in a somewhat dry region and has no outlet. The rivers flowing eastward from the plateau to the sea are of but slight commercial importance, although they may later be used for irrigation purposes.

Tropical forests are limited to the coastal belt and to scattered areas on the mountain slopes facing the rain-bearing winds, but they cover some thousands of square miles, and include valuable timber-trees, e.g. *ebony* and *sandalwood*. There are also magnificent hard-wood forests on the flanks of the great volcanoes, yielding *pencil-cedar*. Much of the country is lightly wooded with acacia, cotton-tree and other timber, while on poor soils, and in the dry regions of Kenya Colony, there are tracts of thorn-bush and scrub. On the higher parts of the plateau, however, there is a rich savannah country, affording great stretches of natural pasture, and readily put under the plough.

Human and Economic Conditions.—In the coastal belt the native peoples are traders and agriculturists, since the tsetse fly makes

British East Africa (Kenya, Uganda, Tanganyika.)

cattle-rearing impossible. Among many tribes of the interior, however, cattle-rearing is the principal occupation, and there are many millions of cattle and sheep. Hence **hides** and **skins** are an important article of commerce. Cattle and sheep-rearing by Europeans are industries so far on a very small scale, but they are proving very successful in the right hands. As **maize** is a widely grown cereal in the European settlements (up to $1\frac{1}{4}$ million tons from Kenya Colony), it is suggested that European *pig-breeding* would prove successful, and this has commenced round Nairobi. Kenya has also an exportable surplus of *wheat* and *barley*. At present **cotton** is the chief commercial crop of Uganda, the output averaging 100,000 bales (200,000 is the record crop), valued at over £2 million. It is nearly all grown by natives on their own holdings, the chief district being round Lake Kioga. Along the coast belt this crop is also successful, and the output from Tanganyika has risen steadily to 30,000 bales. Fibres, notably **sisal hemp** and *flax*, take the lead in Tanganyika and are important in Kenya (the output approximating to 57,000 tons of sisal), since they do not require a very heavy rainfall, and sisal does well on poor soils. The export value is over £1½ millions. In each of the territories (Kenya leading) **coffee** has proved a successful and valuable crop in suitably selected locations, it being easy to handle where transport facilities are poor. It is a main crop of the European settlers and has an export value of about £2 millions. Native-grown coffee from the Bukoba district is increasingly important. **Coco-nuts** (for copra) are widely grown on the coast plains and in the islands of Zanzibar and Pemba, and the industry is capable of improvement and development. The prosperity of the two islands named depends, however, in the first instance, on the **clove** industry, since they yield the bulk of the world's supply of cloves—10,000 tons, worth over £1½ millions. The cultivation of *rice* on the lowlands and of *sugar* could be extended, and a plateau industry of importance is the growing of *wattle-bark* (11,000 acres), although price difficulties have lately caused it to decline. The *ceara rubber* industry was well established by the German planters, but this variety commands a relatively low price, and in the present state of the market is not profitable. The *Para rubber* plantations of Uganda are doing well. *Ground-nuts* are very generally grown, and the *oil-seeds* of the coast belt include sesame. Kenya and Uganda appear deficient in minerals, save for the natron (*sodium carbonate*) deposits occurring on a large scale in Kenya Territory, which are exploited in the Lake Magadi depression, but Tanganyika shows more promise and is already producing diamonds, gold and tin ~~on~~ a small scale.

There is an abundance of native labour in East Africa, although there is some difficulty in attracting the Africans to the farms and plantations. There is also a decided deficiency as regards communications. The principal railway is that from Mombasa, through Nairobi to Kisumu (Port Florence) on Lake Victoria, known as the Uganda Railway. This is the outlet for Uganda also, since there is a break of 89 miles served, by a motor road, between the navigable waters of the Nile within that territory and the highest point (Rejaf) reached by the steamers from Khartum. The railway from Dar es Salaam to Kigoma on Lake Tanganyika is chiefly of military importance, since except for the first 100 miles it passes through undeveloped regions. The branch to Mwanza, on Victoria Nyanza, however, passes through a district producing ground-nuts and cotton, while Mwanza itself

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is the centre for a region of great mineral and agricultural promise. There is, moreover, some transit trade from the Belgian Congo. A smaller line runs from the port of Tanga to Moshi, tapping the plantations of the Usambara highlands, and a branch from the Uganda Railway now connects with this line. There are fairly good roads in the settled districts, and motor-cars and lorries are in increasing use in place of bullock wagons and porters. These roads are impassable during the rains. Some 50 miles of road-rail track (for tractors) have been completed in Uganda.

Trade Relations.—The trade of British East Africa is chiefly with the United Kingdom and with India. The latter country sends cotton piece goods, rice, gunny bags, ghee and miscellaneous articles and food-stuffs for native trade, Zanzibar doing a considerable business in Indian goods, while most of the products of Tanganyika are shipped outwards via Zanzibar or Mombasa. Germany, Belgium, Holland and Japan are competitors in supplying cheap cottons. Articles largely imported in addition to cottons and rice are sugar, groceries, beverages, tobacco, grain and flour, besides drapery, boots and shoes, and a great variety of manufactured goods for the European and other civilized sections of the community, including machinery and other materials for development. While manufactures are supplied mainly from the United Kingdom and India, the United States and the Union of South Africa have obtained some footing in East Africa. Cotton (mostly from Uganda), hides and skins, fibres (mostly sisal from Tanganyika), coffee (from all three territories), copra, millet, and carbonate of soda (from Kenya Colony) are the major exports, ground-nuts, simsim, beeswax and wool forming small items in addition.

Zanzibar has an excellent harbour, visited by large mail steamers, but goods must be lightered both here and at Mombasa. The latter has two harbours, and at the second, Kilindini, deep-water berthing has been provided, thus eliminating lighterage charges.

General Information.—The currency of British East Africa is controlled by a Board. Indian currency has been withdrawn, and the unit is the East African *shilling*, of which 20 = £1. The National Bank of India, Barclays Bank (Dominion, etc.), and the Standard Bank of South Africa have branches in the principal towns, including those of Tanganyika Territory. The telegraph systems are connected with Zanzibar, whence there are cables to Europe, via Aden or Durban. There are wireless stations at Zanzibar, Dar es Salaam, Mwanza and Bukoba (the last two being lake ports on the shores of Victoria Nyanza). Mails reach Zanzibar in 18–27 days (via Aden). There is an Imperial Trade Commissioner at Nairobi, and there are Trade Correspondents at Mombasa, Kampala, Zanzibar, and Dar es Salaam. The Commissioner for H.M. Eastern Dependencies in Africa answers trade enquiries in London.

BRITISH GUIANA

Area and Population.—The Crown Colony of British Guiana has an area of 89,000 square miles, that is to say it is slightly larger than Great Britain. The population is about 300,000, of whom nearly half are East Indians. There are also negroes, Portuguese, Chinese, and a few thousand people of British birth. The importance of the colony may be

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judged by the fact that the foreign trade averages £6 millions, or £20 a head, the exports being in excess of the imports.

Position and Climate.—British Guiana is on the north-east coast of South America, facing the North Atlantic Ocean, and nearly 4,000 miles from the British Isles. It lies wholly within 10 degrees of the Equator, and hence is uniformly hot throughout the year; but on the highlands of the interior the heat is tempered by the elevation as in Uganda. Heavy tropical rains fall on the coastal belt during the greater part of the year, although droughts are not unknown. The highlands are somewhat drier, the principal rains falling in the summer months.

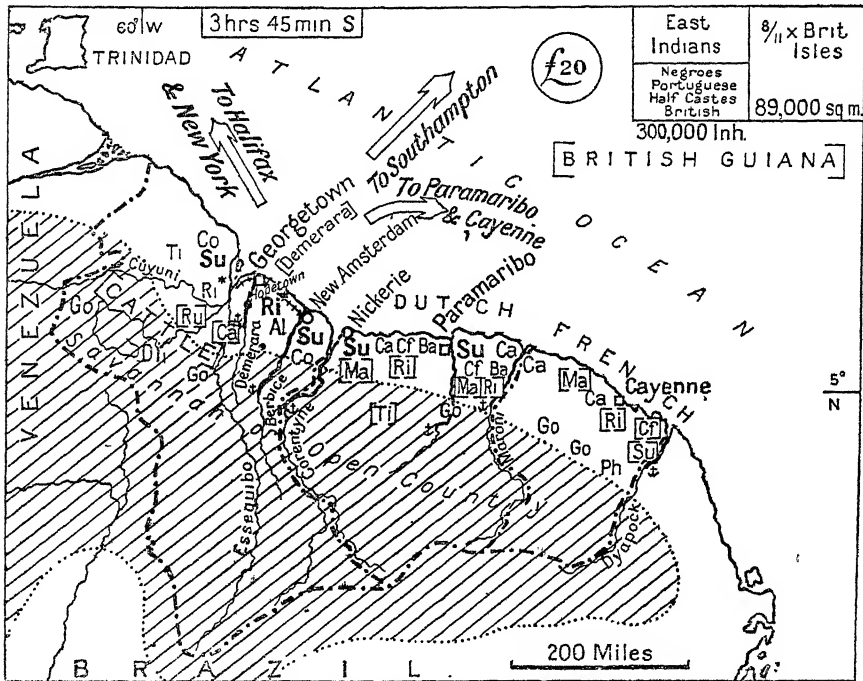


FIG. 20. BRITISH, FRENCH AND DUTCH GUIANA.

General Physical Conditions.—The Guiana highlands, which form the interior of the country, descend gradually towards the north to a broad coastal plain, which is fringed by mangrove swamps. The river Essequibo rises in the extreme south, on the boundary of Brazil, and flows due north to the sea, cutting a wide valley in the highlands. It is joined by the Cuyuni, a tributary coming from the highlands of Venezuela to the west. Parallel to the Essequibo, but rising nearer the sea, are the rivers Demerara and Berbice, both of which are navigable for some distance inland. Around the river mouths are the *polders* established by the original Dutch colonists in the 17th Century. The hot, wet coastal plain is clothed with dense tropical forest, including a number of hardwoods, palms and creepers. The highlands are a typical savannah country, consisting of

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well-timbered or totally treeless grasslands, such as occur, for example, in Nigeria and in the highlands of Brazil.

Human and Economic Conditions.—The staple industry of British Guiana is **cane-sugar**, which is grown on the polders, the plantations covering nearly 60,000 acres, a decrease of 10,000 since the War, owing to labour shortage. The surplus for export is over 100,000 tons annually, but the 3–4 million gallons of rum formerly manufactured has diminished to 1–2 million gallons. The total value of these two products amounts usually to over £2 millions sterling, so that they represent nearly $\frac{2}{3}$ of the total exports of the colony. The cultivation of sugar is almost entirely the work of East Indians, who number about 60,000 of the 70,000 people resident on the estates. The plantations are found in a comparatively small district, round about the mouths of the chief rivers, and they are served by the one railway in the colony, running from Georgetown (population 57,000) on the Demerara to New Amsterdam at the mouth of the Berbice, which is fed by light railways. There is also considerable local traffic by water. An enormous acreage of sugar lands awaits development, the vital factor being the labour supply. With a population of, say, a million, British Guiana might supply the whole demand of the United Kingdom for sugar. East Indian immigration is now forbidden, and settlers from the British West Indies are encouraged.

The second staple of the colony is **rice**. Grown first of all by the immigrants from the Far East for their own consumption, which averages 20,000 tons, the rice-fields in a good year furnish a surplus for export of over 15,000 tons, although a bad harvest may wipe out the surplus. A recent development is the planting of some 27,000 acres of *coco-nut* groves, yielding valuable copra, while there are small plantations of Para rubber, coffee and cacao, all of which might become large scale industries, if the labour and transport difficulties were met.

In the virgin forests gum *balata* is collected, the export being valued at £80,000, and there is a small export of *timber*, which should be extended, including the notable greenheart, a wood peculiarly suitable for constructions under water, and mora, valued for railway sleepers.

The interior highlands offer scope for development on different lines to the coast plain. For over thirty years they have yielded a steady output of *gold* and *diamonds*, the output value averaging £ $\frac{3}{4}$ million, and mining could be greatly extended by the construction of a railway to the interior. Manganese and aluminium (**bauxite**) ores, for example, are known to exist in great quantity, and the exploitation of the latter is well established. Apart from mining, the upland savannah would make an ideal cattle country. Already there are over 138,000 horned cattle in British Guiana, and there is every possibility that the local needs for meat products could be fully supplied, and a continually increasing surplus remain for export. The Savannah cattle-trail is now complete from Takema to Annai.

Trade Relations.—Over three-quarters of the produce of British Guiana is divided between Great Britain and Canada, the latter being a large purchaser of sugar. The imports include great quantities of food-stuffs—flour, meat products, butter, fish—which are supplied from the United States and Canada: for the plantations there is also a demand for manures and machinery, both of which America can supply, and there

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is a general demand for miscellaneous manufactured goods for domestic use, for clothing, and for textiles. The last named come mainly from Britain, but the War has enabled the United States to capture much of the import trade. Thus the States supplied 40 per cent. of the total in 1917, as against Britain's 30 per cent., and 13 per cent. from Canada. The 1921 figures were: U.S.A. 25 per cent., Britain 44 per cent., and Canada 17 per cent., a noteworthy British recovery, since further improved upon.

General Information.—Accounts in British Guiana are kept in dollars and cents, and dollar notes of various denominations are issued by the Royal Bank of Canada, the Barclays Bank (Dominion, etc.), and the Government. British gold and silver are also in circulation. Mails reach British Guiana in 16–21 days. The Comptroller of Customs at Georgetown acts as Imperial Trade Correspondent.

BRITISH HONDURAS

Area and Population.—British Honduras is a Crown Colony administered by a Governor who is Commander-in-Chief. The total area is 8,600 square miles (rather larger than Wales), and the population only 45,000, mainly coloured. Of these nearly a quarter, 13,000, live in the chief town and seaport, Belize. The average trade in 1918–20 was about £1½ millions, or £36 a head, and these figures were unduly low, owing to lack of shipping and the severe influenza epidemic of 1918. Even so the *per capita* trade is higher than in the West Indies in general, but this is owing partly to the fact that the staple products are almost entirely for export, with little local consumption, while part of the trade represents goods in transit to and from the bordering districts of Mexico and Guatemala, and from the Republic of Honduras, for which Belize serves as an entrepôt.¹

General Physical Conditions.—British Honduras lies on the western shore of the Caribbean Sea, between latitudes 16° and 18° N., i.e. it is entirely tropical. The coast runs from north to south, and the prevailing north-east trade winds, blowing in from the sea, bring a heavy rainfall, especially in summer. Hence the coast plain is clothed with dense tropical forest, and is unhealthy and thinly peopled, save along the immediate shore where there are sea-breezes. Towards the western boundary the elevation increases to over 3,000 ft., and here there is a healthy open country with natural pastures.

Human and Economic Conditions.—The staple product of British Honduras is **mahogany**, of which the export is valued at about £200,000, although the quantity cut, for reasons already stated, is at present far short of the pre-war output. The same is true of the second leading commodity, **chicle** (for chewing gum), of which a part comes from the neighbouring States, bringing the 1927 export up to £280,000. The secondary forest products are *cedar* and *logwood*, but plantations have been established which should be of increasing importance. At present the most valuable are those of **bananas** and **coco-nuts**, but cacao and coffee also do well, and cassava is cultivated. The interior highland region is suitable for cattle,

¹ For Map see Guatemala.

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but at present there is an import of beasts from Honduras, for British Honduras lacks internal transport facilities (25 miles of railway only).

The direction of trade is determined by the proximity of the Colony to the United States. This country takes over 70 per cent. of the exports, and furnishes over 50 per cent. of the imports, including both food-stuffs and manufactured goods. The United Kingdom supplies about 17 per cent. of the imports, chiefly cotton textiles, and takes 17 per cent. of the exports. All goods must be lightered at Belize, the only port.

General Information.—British Honduras, in common with the British West Indies, has entered into a reciprocal tariff agreement with Canada, and the latter is establishing a fortnightly passenger, mail and freight service. The Royal Bank of Canada is established in Belize. Accounts are kept in dollars and cents and the United States gold dollar is the standard of currency, while British gold is legal tender at a fixed rate of exchange. Foreign cables are sent via Mexico, and there is wireless communication with Jamaica and New Orleans. Mails reach Belize in 14–21 days, or by air mail in 8–10 days. The Colonial Secretary at Belize acts as Imperial Trade Correspondent.

BRITISH ISLES (GREAT BRITAIN AND NORTHERN IRELAND)

See **Great Britain and Northern Ireland**, p. 217, and **Irish Free State**, p. 269.

BRITISH SOLOMON ISLANDS

See **Solomon Islands, British**, p. 400.

BRITISH SOMALILAND

See **Somaliland Protectorate**, p. 401.

BRITISH SOUTH AFRICA

Area and Population.—British South Africa includes the Union of South Africa (a self-governing Colony), the Territory of South-West Africa (administered by the Union), and three native Protectorates, Basutoland, Bechuanaland and Swaziland, each administered by a Resident Commissioner, acting under the High Commissioner for South Africa. The total area of these territories is over 1 million square miles (about the area of the Argentine Republic, or nine times the area of the British Isles), and the population only 8 millions. The Union occupies rather less than half the total area (473,000 square miles), but contains $7\frac{1}{2}$ millions of the population.

In the Protectorates the white population numbers a few thousands only, while in the Union whites number over $1\frac{1}{2}$ millions (mainly of British and Boer descent), as against a coloured population of nearly 6 millions. The fact that the whites are outnumbered by the blacks in the proportion of four to one is an outstanding point of difference between the Union of South Africa and

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the other self-governing Colonies of the Empire, and constitutes a serious problem. All manual and domestic labour is performed by the "Kaffirs," and there is no place in South Africa for unskilled white labour. Immigration is practically limited to persons with capital, and to skilled workers coming to take up appointments. A small but important element in the population are the Asiatics: they include about 100,000 British Indians in Natal, 10,000 in the Transvaal, and 20,000 Malays in the Cape of Good Hope Province. Severe restrictions have been placed on further Asiatic immigration. About one million African natives live in the Transkei, the native territory in the east of the Cape Province, while about half the native population of the Transvaal is found in the Zoutpansberg and Lydenburg districts in the north.

The largest city in South Africa is Johannesburg, with about 300,000 inhabitants, including 170,000 whites. Cape Town, the leading seaport and the seat of the Legislature, has about 220,000, including 130,000 whites. Durban, the chief city and seaport of Natal, has about 160,000 inhabitants, including a white minority of 71,000. Pretoria, the capital of the Transvaal and of the Union, has a marked white majority, 54,000 out of a total of about 80,000. Port Elizabeth, with about 60,000 inhabitants, in the East of the Cape Province, also has a white majority. These are the only towns with more than 50,000 inhabitants, with the exception of Germiston and Krugersdorp, on the Rand, where the coloured persons outnumber the whites by $2\frac{1}{2}$ to 1 and $3\frac{1}{2}$ to 1 respectively. Bloemfontein, the capital of Orange Free State, has only 40,000 inhabitants, whites forming 50%. Windhuk, the seat of administration of the South-West Africa Mandated Territory, has 10,000 inhabitants.

The total trade of the Union of South Africa in 1927 reached the figure of £154 millions (exports, £80 millions). To this must be added £1½ millions representing the trade of Basutoland, and £6 millions for the trade of the former German South-West Africa Protectorate, giving £162 millions in all, the same figure as in 1919. This works out at about £20 a head, a figure which understates the case, since a considerable proportion of the coloured population contribute but little to the economic wealth of the country. Australia, with a white population of 6 millions, has a *per capita* trade of £50, while it somewhat closely resembles South Africa in the character of its products.

Position and Climate.—British South Africa embraces almost the whole of the continent lying outside the southern tropic, while Bechuanaland and South-West Africa extend to within 17° S. of the Equator. Development within the tropics is relatively slight, but temperate South Africa stretches from the Atlantic to the Indian Ocean and from 22½° to 33° S., and hence embraces a great variety of climates. The result is seen in the extent to which—consequent on the variety of products—the country is self-contained regards food-stuffs.

Except upon the east coast belt, and upon the terraces rising from this coast to the Drakensberg, the rainfall does not average 40 in., that is to say, it is moderate to slight, and over large areas actually deficient. In the regions of moderate rainfall, there is very little margin of safety, and if the rains are late or scanty, springs, wells and rivers rapidly dry up, so that disastrous droughts are not uncommon.

Broadly speaking, the Cape region, i.e. the extreme south-west of the

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Cape Province, has a winter rainfall, due to westerly winds, and is dry in summer. The rest of the country has summer rains, brought by the south-east trades, which consequently diminish with increasing distance from the east and south-east coasts. The "Cape to Cairo" railway (except in the Cape region, already mentioned) may be taken as marking the boundary between the sufficiently watered and insufficiently watered parts of the country. Agricultural development is to the east and south of this line, while the nearer to the line the more important (relatively) is the part played by pastoral industries.

The climate of the Cape region resembles that of the Mediterranean lands, while that of the coastal plain of Natal and Zululand is (owing to warm ocean currents and winds) almost tropical. Elsewhere the altitude of the country, usually more than 3,000 ft. above sea-level, moderates the climate. The combination of high altitude and low rainfall gives great power to the sun's rays, so that the summer days are exceedingly hot, and the sudden chill at sunset is often dangerous to health. There is no actual cold season, but winter frosts are not infrequent during the night.

The west coast plain is very dry, as is the whole southern part of the South-West Africa Protectorate, but the northern area has moderate tropical summer rains.

General Physical Conditions.—South Africa is a vast tableland with a lofty rim to the east and south, represented by the Drakensberg, Storm Berg and Nieuwveld Mountains. The main drainage is carried east by the Orange and Vaal Rivers, which after they unite flow through an increasingly dry region, and descend from the plateau level by the Great Augrabies Falls. Neither river nor falls, in view of their situation, is of economic value. In the north-west and the north of the Transvaal the tableland slopes down to the unhealthy tropical valley of the Limpopo, a river which subsequently enters Portuguese territory.

The south-west (Cape region) and south lie outside the tableland, and are characterized by a series of mountain ridges which run parallel to the coast. These ridges catch the rains, and those nearest the south coast are forested. Between them lie very dry valleys and plains, such as the Little and Great Karroo, which can, however, be partially irrigated.

The Cape region has a vegetation of evergreen trees, shrubs and heaths; the well-watered eastern terraces are clothed with a rich wooded savannah, with palms on the coastal belt; over vast acres of the eastern tableland (Southern Transvaal, Orange Free State and Cape Province) there is an almost treeless grassland, the *veldt*, which merges westwards into scrub and bush, composed of thorn bushes, and other drought-resisting plants. In the northern Transvaal the grassland is wooded, and is known as the bush *veldt*.

Human and Economic Conditions.—The dry climate and enormous acreage of natural pasture in South Africa pointed to pastoral occupations as the most suitable for European colonists. There are nearly 40 million sheep, and 8 million goats in the country, including a large proportion of pure-bred and cross-bred merinos, and Angora goats, which thrive best in semi-arid regions. About 250 million lb. of wool and 10–15 million lb. of hair are produced. Cattle number nearly 10½ millions, and become increasingly important towards the east and south. Oxen are very generally used for transport purposes, and during the last few years there has been an increasing export of beef. Dairy farming is very successful

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period of great depression during the War, owing to changes of fashion. **Pigs** number about a million, and in view of the large maize crops raised, their numbers might be increased. Some trial shipments of pork have been made. About 40 per cent. of the cattle, pigs and poultry are owned by Kaffirs. The *egg* industry is one capable of development.

The most important cereal crop of South Africa is **maize**, to which the hot summers are well suited: the heaviest crops come from the better watered areas to the east of a line drawn from Port Elizabeth to Pretoria. The export of maize and maize meal in 1921 was worth nearly £3 millions, but great fluctuations in yield occur. The **wheat** harvest is much smaller than that of maize, and wheat is sometimes imported. It is grown in a relatively narrow belt, with 20 to 25 in. of rain, along the eastern margin of the tableland, running from the south-eastern Transvaal into the Cape Province, and including the fertile Caledon Valley on the borders of Basutoland and Orange Free State. A second wheat region is that behind Cape Town, where the Mediterranean type of climate is very favourable. Grain elevator construction is proceeding, but bags are still generally used.

Tobacco is very widely grown, and supplies the large local demand. A market is being sought for the surplus (about 10 million lb.), notably by the growers of Virginia leaf in the Rustenburg area in western Transvaal. A little Turkish leaf is grown in the Cape region, at Stellenbosch. The climate of the latter region, with its summer drought, is very suited to fruits. The **vine** is grown, and Cape wines and brandies are well known, although the export is not great. Small consignments of superior dessert fruits—plums, pears, peaches—from this area also reach the United Kingdom. Of greater promise, however, is the **dried fruit** industry. The surplus for export has reached 5,000 tons, including raisins, sultanas, prunes, pears, apricots and peaches—after supplying the African market.

Oranges do very well in many parts of South Africa, notably in the Transvaal, and the shipment of about $\frac{3}{4}$ million cases in 1927 was fifteen times that of 1919. South African oranges arrive in the London market during the summer, when the fruit from Spain and elsewhere in the northern hemisphere is over. **Pineapples** are grown in the south-east, in the Bathurst district, and are canned at Port Elizabeth. *Bananas* do well in Natal.

The semi-tropical coast plain of Natal (including Zululand) has two important industries not found elsewhere: the cultivation of **tea** and **sugar**. Indian labourers are generally employed upon the plantations. The **tea** crop averages 5 million lb., and is practically all marketed in South Africa, but it is decreasing: shortage of cheap labour prevents the otherwise possible extension of the acreage, for it is protected by a duty on imported tea. The **sugar** crop has increased lately and averages 250,000 tons, a figure which leaves a surplus available for export. Another notable industry of Natal is the cultivation on the middle terraces of *wattle bark* (a tanning material), derived from an Australian variety of acacia.

Experiment has shown that South Africa can grow **cotton** of middling American grades, and since Kaffir women and children can do the work of ~~picking~~ ^{ginning}, the industry should develop. At present the coast region of Natal and Zululand, and the Rustenburg district of the north-western Transvaal are the chief areas that have taken up this industry seriously, but after ten years' work the crop is still small, and prospects are not encouraging.

The agricultural importance of South Africa has always been over-

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shadowed by the more spectacular gold and diamond industries, but in 1919 the value of the agricultural and pastoral produce exported amounted to £32½ millions, or nearly 40 per cent. of the total, while in 1927 it was one-third of the total. Moreover, unlike the gold and diamonds, the farm produce is partly retained for home consumption, and expenditure on imported foods is only £1 a head.

The South African Government is seeking to attract British immigrants with capital to take up combined fruit and stock farming, and is also granting land on easy terms to settlers in the Mandatory Territory. Irrigation is assisted and encouraged, e.g. Gt. Fish River Scheme, so that an increase in agricultural wealth and prosperity should normally be expected.

The *mineral* wealth of South Africa is, of course, enormous, the total value of the output up to the end of 1921 being calculated at over £1,000 millions. Of this, **gold** represents considerably more than half, nearly all the South African gold coming from the quartz reef of the Witwatersrand, in the Transvaal. The annual yield is about £35 millions. The mines employ about 180,000 coloured labourers, and 22,000 whites: hence Johannesburg and its neighbourhood is the most densely peopled area in the Union.

Ranking second to the gold mines as regards the monetary value of their output are the **diamond** mines, of which those of the Kimberley district, in the Cape of Good Hope Province, are the best known. Both the Orange Free State and the Transvaal have also important mines, and the industry employs about 40,000 persons (6,000 whites). The output (averaging £9 millions) is regulated to keep prices high. A local diamond-cutting industry receives Government support, but for success it would be necessary to introduce skilled workers from Holland or Belgium, the countries which practically monopolize the industry. Diamonds from Luderitz Bay (South-West Africa) were valued at £3 millions in 1920. Recent finds in the Transvaal, west of Mafeking, and at the mouth of the River Orange have been so spectacular that the Government has taken steps to restrict the output. The State diggings at Alexandra Bay have yielded the Government a substantial revenue. The British South African monopoly has also been threatened by the discoveries in the Belgian Congo.

The **coal** resources of South Africa are very great. The most extensive fields are in the Transvaal—on the ~~Delagoa Bay~~ railway, to the east of Johannesburg, and on the Orange Free State border, which supply the Rand. Next in extent are the Zululand deposits, but a greater output is obtained from the fields in the Dundee and Newcastle districts, in north-western Natal, on the Durban-Johannesburg railway. The fact that there is only a single line of rails limits the amount of coal that can be hauled down to Durban, which is, however, a very important coaling station. ~~The Orange Free State has some mines near the Transvaal border, while the Cape Province has only the Indwe field, about 100 miles north of East London, where the mines are practically closed down.~~ The total output for 1927 (13 million short tons) was valued at £4 millions.

Among metals of secondary importance are **copper** and **tin**. The fall in copper prices, however, has caused the important Namaqualand mines, behind Port Nolloth, practically to cease production, and the present output is mainly for the Messina mines in the extreme north of the Transvaal, and from the Tsumeb-Grootfontein area in the north of South-West Africa.

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Tin is mined in the Waterberg district of the Transvaal, and in Swaziland. The total output of the two metals is worth rather over £1 million.

The Union is now the largest producer of **corundum**, mined at Zoutpansberg, and has valuable **asbestos** mines, including huge reserves in Grigqualand West, where at present transport facilities are wanting. *Platinum* has been discovered on a large scale in the Waterberg and Lydenburg districts in the Transvaal, and the output in the second year of production reached nearly £150,000, but the world-market for this metal is of course limited. Altogether the mineral output is worth over £60 millions, and mining employs nearly 360,000 people. Iron pyrites is mined for sulphuric acid manufacture, and *pig-iron* is produced at Pretoria and Newcastle, while there are large steel-works at Vereeniging on the Transvaal coalfield.

As regards *manufactures*, the Union has recently made considerable progress, and the annual output of the factories is now valued at over £60 millions. The products include biscuits, jams and preserves, beer, cement, soap, candles, matches, furniture, leather, boots and shoes, *explosives*, *chemicals*, tobacco (one of the most important), vehicles and so forth. New ventures of interest are bottle-making, extraction of tannin from wattle-bark, and the manufacture of fertilizers from the phosphate rock of Saldanha Bay. There is, however, a real deficiency of manufacturing knowledge and skill in South Africa, and an advantageous line of development would be the establishment of branches of British firms in the country in which a nucleus of the personnel should be from Britain.

As regards raw materials, there is, of course, a marked deficiency of **timber** in South Africa, and the forests of the southern ranges (e.g. *Knysna*) have been seriously depleted. The Government is spending some money on re-afforestation, and is also engaged in furthering schemes, e.g. the damming of the Crocodile River in north-western Transvaal, which will remedy the even more fundamental deficiency in the water-supply over wide areas.

Trade Relations.—The whole transport system of South Africa—railways, ports and harbours—is owned and managed by a State Department. There are over 12,000 miles of railway, and a further 1,300 miles has been surveyed, while the electrification of the lines in the immediate neighbourhood of Johannesburg and Cape Town, and in the colliery region of Natal has been decided upon. The last is making good progress.

As regards external trade, Great Britain takes two-thirds of the total exports (gold, diamonds, wool, maize, hides, etc.), and only 2 per cent. goes to the United States. On the other hand, Great Britain supplies only 45 per cent. of the imports (mainly manufactures), while the United States supplies 15 per cent., and Germany 7 per cent., the three countries together supplying two-thirds the total required. Japan's trade with South Africa, which rose rapidly during the War, has settled down at a mere 1 per cent. or so, mainly silk and cotton piece goods. The United States has a strong position as regards motor vehicles and motor necessities, Germany supplies cheap lines in the whole range of small manufactured goods, while Belgium competes with Great Britain in tendering for railway material and heavy iron and steel goods.

~ Cape Town is the premier port of South Africa, being the nearest to Great Britain and America, and having the greatest shipping facilities. Durban ranks second, with the advantage of cheap coal, and is the principal port for Johannesburg. The nearest port to the latter city is, however,

British West Indies—Bahamas.

Delagoa Bay (Lourenço Marques), which takes a certain proportion of Transvaal trade.¹ Port Elizabeth (Algoa Bay) and East London are of secondary importance, but the latter is the premier wool-mart.

General Information.—English and Dutch (Taal) are the official languages. The coins and standard weights and measures are British, but the metric system is also legally in use, and the cwt. has been replaced by the cental of 100 lbs. Among old Dutch measures still in use are the *muid*, equal to three bushels, and *morjen*, equal to 2.1 acres. The principal banking establishments are the Barclays Bank (Dominion, etc.), the Standard Bank of South Africa, and the Netherlands Bank of South Africa, of which the first two have branches throughout South Africa. A Central Reserve Bank has been established at Pretoria, with branches in the leading cities, which has a monopoly of note issue. All these banks have London offices.

The mails from Southampton (Union Castle Line) reach Cape Town in 17 days, Durban in 20 days. Johannesburg is 24 hours' journey from Durban, 25 hours from Delagoa Bay, and 44½ hours from Cape Town. There are Imperial Trade Commissioners at Cape Town and Johannesburg, and Trade Correspondents at Durban, Port Elizabeth, Kasane (Bechuanaland Protectorate), and Maseru (Basutoland). The Secretary to the High Commissioner for the Union answers trade enquiries in London. The Union of South Africa is a member of the League of Nations.

BRITISH WEST INDIES²

BAHAMAS

Area and Population.—The Bahamas are a British Crown Colony administered by a Governor. The chief islands are New Providence, Abaco, Harbour Island, Grand Bahama, St. Salvador, Long Island, Mayaguana, Eleuthera, Exuma, Watling's Island, Acklin's Island, Crooked Island, Great Inagua, Andros Island. The total area is 4,400 square miles, and the population 60,000, negroes being in the majority. The capital and chief port, Nassau, is on Providence Island. The total trade is about £2½ millions in each direction, or about £38 per head.

Position and General Physical Conditions.—The Bahamas are a large and scattered group of coral islands, stretching from a point not far from south-east Florida (U.S.A.) to the north of the Windward Passage. They are low-lying, and the consequent low rainfall, combined with the limestone soil, gives them a somewhat barren aspect. Moreover, their exposure to the Atlantic winds prevents much tree growth, although a

¹ By agreement with Mozambique Colony (Portuguese East Africa), native labour for the Transvaal mines is recruited in the former territory, which supplied one-third of the total number in 1918. In return it was agreed that between 50 and 55 per cent. of the traffic from the area between Pretoria and Klerksdorp should pass through Delagoa Bay.

² Though grouped together for convenience, it should be noted that the British West Indies are scattered over an enormous area, and that intercommunications are poor. Their inhabitants also differ widely, so that for commercial purposes they should be considered separately. The West India Committee answers trade enquiries in London.

British West Indies—Barbados.

timber *pine* is found. The Tropic of Cancer runs through the group, hence the climate is very hot and sunny, but tempered by the winds.

Human and Economic Conditions.—The staple industry of the Bahamas is the **sponge** fishery, worth £200,000 in a good year. The *turtle* fisheries are of minor importance only. The climate and soil conditions have been found very favourable to **sisal**, which is now the chief crop grown for export. Since Nassau lies less than 200 miles from the port of Miami, Florida, the islands are favourably placed for providing *winter vegetables* to the United States, and the *tomato* industry is important. This industry was a valuable stand-by in 1920 when the prices of sisal and sponges fell heavily. *Pineapples* also succeed, and are canned and exported.

Trade Relations.—With the exception of fruit and vegetables practically all the necessities of life must be imported into the Bahamas, while very little of the staple products is retained for local consumption. More than 80 per cent. both of the export and import trade were until recently with the United States, but to-day the imports from Britain and Canada make up more than 50 per cent. They include wines and spirits on a large scale, for there is a large influx of American tourists.

General Information.—British silver and bronze coins are legal tender without limit, but American money is also in circulation. The Royal Bank of Canada has a branch at Nassau. Telegraph communication is by wireless. Mails take 11–14 days in transit or 9–10 days by air mail. The Colonial Secretary acts as Imperial Trade Correspondent.

BARBADOS

Area and Population.—Barbados is a British Crown Colony administered by a Governor. The area is 166 square miles and the population nearly 156,000 (chiefly negroes), i.e. over 1,200 to the square mile. The total foreign trade has fallen from £5½ millions to £4 millions, but it is still £25 a head, a much higher figure than that for the West Indies in general. Part of this is, however, entrepôt trade, carried on through Bridgetown, which has a population of 13,000, and is also an important mail and coaling station.¹ The tonnage entered and cleared is 3·8 millions, of which 75 per cent. is British.

Position and General Conditions.—Barbados is the most easterly of the British West Indies, lying on the margin of the Atlantic Ocean, 60° E. of Greenwich and in latitude 13° N. The surface is covered with coral limestone, but the island is elevated, and as it lies in the path of the trade winds, it is well watered and exceedingly fertile.

Human and Economic Conditions.—The staple industry of the Barbados is **sugar** cultivation, usually from small holdings, the output being greater than in any other of the British West Indies, and the export averaging over 50,000 tons. The value of the sugar, molasses and rum exports is three-fourths the total. The secondary crop is *cotton*, the output being about 400 bales of 500 lb.

Trade Relations.—Among the imports coal, rice and manures, partly for redistribution, are important. Of manufactures, cotton textiles

¹ For Map see Leeward Islands, p. 89.

British West Indies—Jamaica and Dependencies.

form the largest class. In 1919 goods to the value of over £1 million came from the United States, while the share of the United Kingdom was £740,000 and of Canada £726,000, the United Kingdom has now the first place, while the United States and Canada compete for the second. Canada takes the largest proportion of the sugar output (over £1 million), followed by the United Kingdom, the share of the United States in the export trade being small. Newfoundland takes a large quantity of molasses in return for dried fish. Barbados is one of the few West Indian islands with surplus labour, which has lately been recruited for British Guiana.

General Information.—About three-fourths the tonnage entering and cleared at Bridgetown is British. English coins are in circulation, besides dollars and 5-dollar notes. The Barclays Bank and the Canadian Bank of Commerce have branches at Bridgetown. There is cable connection with the other West Indian Islands. Mails from England reach Bridgetown in 14 to 19 days. The Colonial Secretary acts as Imperial Trade Correspondent.

JAMAICA AND DEPENDENCIES

Area and Population.—Jamaica is a British Crown Colony administered by a Governor: attached to it are the Turks and Caicos Islands, Cayman Islands, Morant Cays and Pedro Cays. The total area is nearly 4,500 square miles (about three-fifths the area of Wales), and the population about 900,000. Of this total only 16,000 (under 2 per cent.) are whites, the great majority being negroes or of part-negro descent. East Indians (i.e. immigrants from British India) number 17,000, and there are a few thousand Chinese. The only considerable city is the capital and seaport, Kingston, with 60,000 inhabitants: no other town has a population above 10,000. The total foreign trade, alike in 1919 and in 1927, was £10½ millions—rather less than £12 a head, a *per capita* figure a little below that of the British West Indies as a whole. Imports are considerably in excess of exports.

Position and General Physical Conditions.

Jamaica is one of the Greater Antilles, lying in latitude 18° N. to the south-west of the Windward Passage between Cuba and Haiti, leading into the Caribbean Sea. The island is mountainous throughout, the loftiest range, the Blue Mountains, being found in the east. The rainfall is abundant, especially in summer, when the winds have an east-north-easterly direction, hence there are numerous rivers, and the mountains are divided by deep and fertile valleys. The natural vegetation is a luxuriant tropical forest, but over a million acres are under cultivation or care.

The Turks and Caicos Islands are a part of the fringe of coral islands and islets which lies to the north and north-east of the Greater Antilles. They

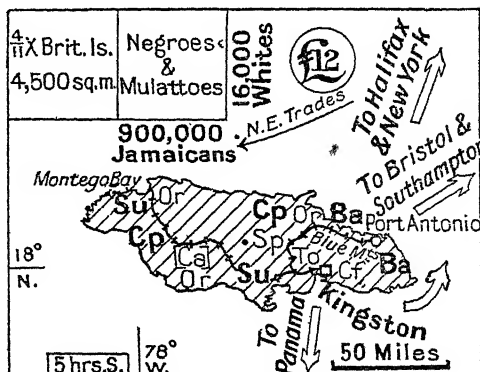


FIG. 22.—JAMAICA.

British West Indies—Jamaica and Dependencies.

are very low-lying and the climate is dry, although the limestone soil is fertile. Cayman Islands, three in number, lie in the Caribbean Sea about 200 miles east-north-east of Jamaica, and are also of coral formation.

Human and Economic Conditions.—The crop covering the largest acreage in Jamaica is **bananas**, which account for over half the total value of exports, the output of 1928 being some 25 million stems. The crop is not always a certain one, however, owing to the hurricane danger. A series of hurricanes and the shortage of freight reduced the banana export in 1918 to less than £300,000 in value, and to the fourth place on the export list. In 1921 it again took first place, with a value of £1½ millions. The banana groves are chiefly in the east of the island, and Port Antonio is mainly occupied with this industry. The low price of **sugar** led to this commodity taking the fifth place among Jamaican exports in 1912, whereas it rose to the first place in 1918, the quantity being about 43,000 tons, worth over £600,000. The prosperity of the industry led to the installation of up-to-date machinery, and to the erection of new centrals, with the result that, in spite of falling prices, output has increased, and the export is worth £¾ million. The **coffee** plantations have diminished, although the value of the output has increased, and the "Blue Mountain coffee" enjoys a very high reputation. This industry is suitable for the small grower only. *Coco-nut* planting was on the increase before the War, but suffered a set-back for the same reasons as did the banana industry; it too, however, has recovered. Coco-nuts are the chief product of the Cayman Islands. The forests of Jamaica yield **logwood**, and there are now several factories engaged in the preparation of the extract, which was exported in 1918 to the value of nearly £400,000. The renewed competition of German synthetic dyes has led to a diminished output. The climate and soil conditions are suitable to *cacao*, but the bean can only be ripened in valleys sheltered from the strong trade winds, and hence its cultivation is restricted. *Oranges* do well, but lack a market, now that the United States are so nearly self-supplying. A paying crop, grown however on a small scale, is **tobacco**, which if given proper attention yields a leaf little inferior to that of Cuba, and is manufactured into cigars. Yet another secondary product is *pimento*, or allspice, which is chiefly supplied from Jamaica, and is picked and prepared by cheap negro labour. The tree grows wild, and as the leaves have been found to yield the essential oil *vanillin*, the extraction of this is contemplated. The Government proposes also to foster the **sisal** industry in the east of the island, and to erect a factory. This industry is already established in the Turk and Caicos Islands, since it is suited to a dry soil and climate. These barren islands are, however, dependent mainly on the produce of the sea, *salt*, sponges and conch shells. Co-operative marketing is making progress in the fruit industries.

Trade Relations.—The trade of Jamaica is, as regards over 90 per cent., with three countries only: the United Kingdom, United States, and Canada. Jamaica is 4,000 miles from Bristol, 1,800 from Halifax, 1,500 from New York. Canada has the disadvantage of being at a greater distance from the Indies than the States, and of offering goods which are in competition with those of the latter country. The establishment of reciprocal preference, and of direct shipping service by the Canadian Merchant Marine, is giving compensatory advantages, but at present the Dominion

British West Indies—Leeward Islands.

averages 10 per cent. only of the total trade. The United States takes the lead in exporting goods to Jamaica, whereas the United Kingdom receives the largest share of Jamaican produce: the figures being between 60 per cent. and 70 per cent. in either case. On the other hand, the United Kingdom supplies only 20 per cent. of Jamaica's imports, while the United States takes only 24 per cent. of the colony's exports. Comparison of the latest figures suggests that the United Kingdom has strengthened her position slightly since 1918, but the relative positions of the three countries will probably remain unchanged.

In supplying textiles and clothing the United Kingdom takes the first place, while the United States supplies motor-cars, vehicles and furniture, and is a strong competitor as regards machinery, hardware, and metal goods generally, besides supplying flour, meat and groceries. Of a number of new locomotives for the Jamaican railway, some were ordered from Canada and some from the States. Canada supplies fish and buys sugar, fruit and tropical groceries.

The trunk railways run from Kingston westwards and then north-westwards to Montego, the northern port, and from Kingston north-east to Port Antonio. There is great need for light railways, to extend the area of development. Electrification is under discussion, and harbour improvements are promised.

General Information.—The legal coinage, weights and measures are those of Great Britain, but American coins are very generally used, and notes of Barclays Bank, the Royal Bank of Canada, and Bank of Nova Scotia, which operate in the country, are current. The cable station is at Grand Turk. Mails reach Kingston in 12–17 days. The Canadian Trade Commissioner acts as Imperial Trade Correspondent at Kingston.

LEEWARD ISLANDS

Area and Population.—The Leeward Islands are a British Crown Colony administered by a Governor and Commander-in-Chief. They are divided into five Presidencies, viz. *Antigua* (with Barbuda and Redonda), *St. Kitts* (with Nevis and Anguilla), *Dominica*, *Montserrat*, and the *Virgin Islands* (with *Sombrero*). The total area is 715 square miles, and the population 122,000, or over 170 to the square mile. The foreign trade has fallen from nearly £2 millions to £1½ millions annually, exports being slightly in excess of imports. The *per capita* trade is thus about £12—equal to that of Jamaica. The population is mainly negro and coloured, with an aboriginal Carib element in *Dominica*, while the whites are usually of French descent.

Position and General Conditions.—The Leeward Islands form a chain bordering the Caribbean Sea on the north-east, and stretch from latitude 18° N. to latitude 15° N. *Dominica* is separated from the rest by French *Guadeloupe*. The tropical climate is relieved by the sea-breezes, and by the mountainous character of the islands, which are of volcanic origin. Rain is abundant and the soil is exceedingly rich and fertile. The group is, however, in the hurricane track, and crops are not infrequently destroyed.

Human and Economic Conditions.—*Antigua*, *St. Kitts*

British West Indies—Leeward Islands.

and Dominica are the chief islands, the two first named producing altogether 23,000 tons of **sugar** annually, while the latter has large areas devoted to **limes**. The ports of shipment are St. John (10,000 inhabitants), Basseterre

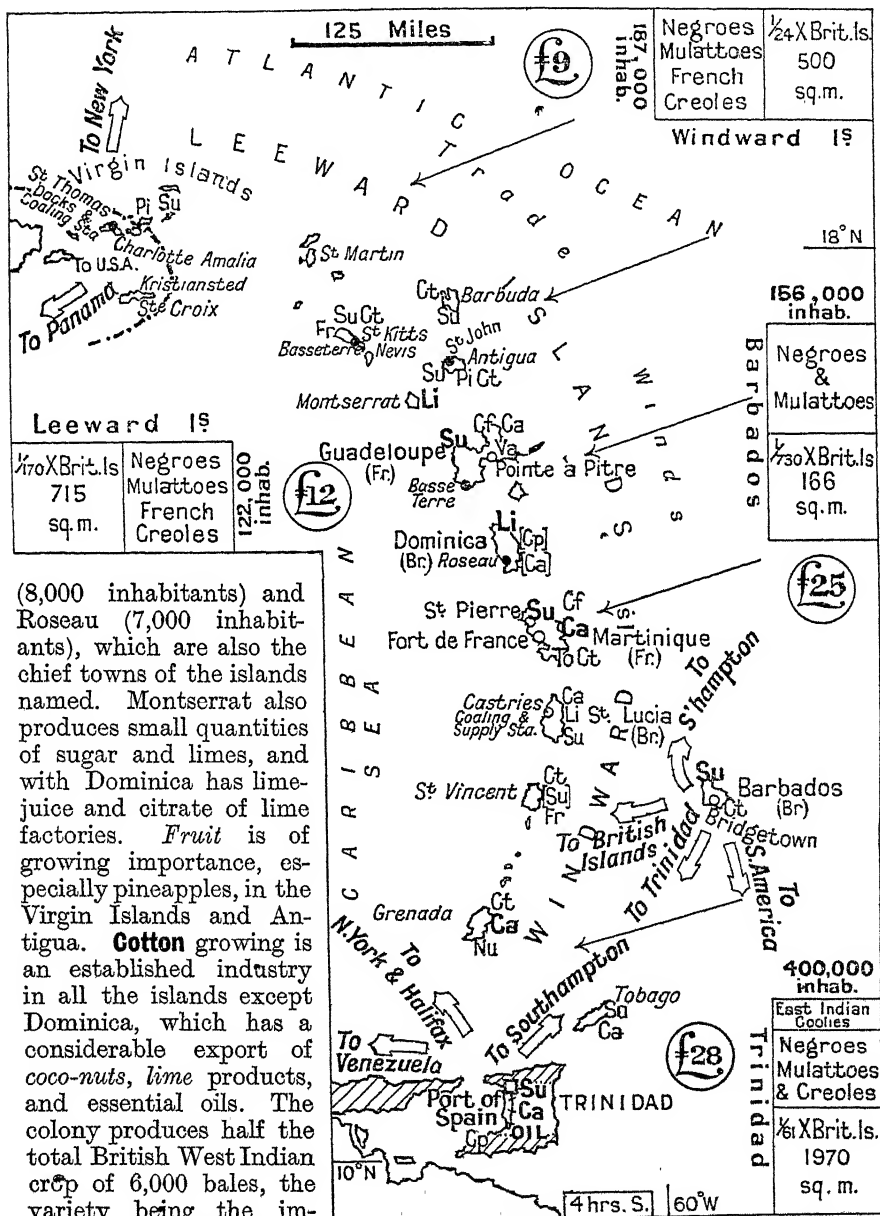


FIG. 23.—BARBADOS, LEEWARD ISLANDS, WINDWARD ISLANDS, TRINIDAD AND TOBAGO.

British West Indies—Trinidad and Tobago.

Nevis have the largest output, that of St. Kitts being of superfine quality. Unfortunately the pink boll-worm has appeared and planting has ceased in the Virgin Islands.

Trade Relations and General Information.—The Leeward Islands sugar goes to Canada and the United Kingdom, the cotton to Lancashire, while the lime and lime products and fruit go in part to the United States and in part to the United Kingdom. The imports (flour, meat, manufactures) come chiefly from the United States, the United Kingdom and Canada supplying the balance. The chief banking establishments are Barclays Bank and the Royal Bank of Canada, and British coins, weights and measures are in general use. There is cable connection with the other West Indies, and indirectly with Britain. Mails take 15–25 days in transit. There are Imperial Trade Correspondents at each of the five Presidencies.

TRINIDAD AND TOBAGO

Area, Population, and Position.—The British Crown Colony of Trinidad, lying off the coast of Venezuela, to the north of the Orinoco Delta, is an island about one-fourth the size of Wales (area 1,860 square miles); but although only one-third of its area is under cultivation, its production is greater than that of the neighbouring Republic on the mainland. Of the population of nearly 400,000 people (rather less than that of Sheffield), one-third are East Indian coolies, and the remaining two-thirds are largely of mixed European (French or Spanish) and African (negro) descent. Thus there is an abundance of relatively cheap labour for the plantations. The capital is Port of Spain with 70,000 inhabitants. Tobago has an important tourist industry. The total trade of the colony averages over £10 millions annually, or £28 a head, exports being slightly in excess of imports.¹

Climate and Physical Conditions.—Trinidad, lying between parallels 10° and 11° north latitude, is in the trade wind belt, but is sufficiently far south to be outside the range of the West Indian hurricanes, a fact of great importance to the fruit industry. Moreover the mountain ridges run from west to east, so that the valleys are sheltered from the prevailing winds. The chief seaport, Port of Spain, is on the leeward coast, facing the mainland of South America. There is everywhere plenty of rain, so that the country is pleasantly wooded, and daily sea-breezes temper the tropical heat.

Human and Economic Conditions.—As compared with the South American Republics, the economic development of Trinidad is in a very advanced state. There are many obvious reasons for this: the island is small and compact in area, so that the population is not scattered, and an efficient system of roads and railways is readily constructed and maintained; moreover, it has for many years enjoyed a settled government and a stable currency. The **sugar** plantations were for long the chief wealth of the island, but the export of sugar, rum and molasses, although important, is now exceeded in value by that of *cacao*. The **coco-nut** plantations, too, are being more systematically developed, and both nuts and copra are

¹ For Map see Leeward Islands.

British West Indies—Windward Islands.

valuable secondary exports. Trinidad has long been famous for its **asphalt** lake, the product of which is loaded direct into tramp steamers, forming the most bulky, although not the most valuable, export from the island. Recently, however, the output of **petroleum** has risen to $7\frac{3}{4}$ million barrels (1928), and the export of crude and refined oils is valued at £2 $\frac{1}{4}$ millions.

Trade Relations.—As consumers of the produce of Trinidad, the British Isles and the United States rank almost equally; then come Canada and France. All kinds of manufactured goods are in demand, especially clothing and textiles, domestic wares, and agricultural machinery: a large quantity of grain, too, is required, especially wheat, flour and rice. As importers the United States and Great Britain compete for the first and second places, while Canada takes the third. There is a considerable transit trade to and from Venezuela, for which Port of Spain serves to a certain extent as a distributing centre. San Fernando is a growing port for the oil industry. Trinidad has an unusually good shipping service, and consequently freight rates are low. Oil bunkering is increasingly important, and oil is used on the local railways.

General Information.—In addition to Barclays Bank, the Royal Bank of Canada has a branch at Port of Spain. Dollars and dollar notes are the usual currency. Port of Spain is 15 days from Southampton by the fastest mail route (Royal Mail Steam Packet), the distance being 3,856 miles. The distance to New York is under 2,000 miles. There are good cable and wireless communications. There is an Imperial Trade Commissioner at Port of Spain.

WINDWARD ISLANDS

Area and Population.—The Windward Islands are a British Crown Colony under a Governor and Commander-in-Chief. They include St. Lucia, St. Vincent, Grenada and the Grenadines (including Carriacou), the latter being half under St. Lucia and half under St. Vincent. The total area is about 500 square miles, and the population 187,000, or 374 to the square mile. The total trade is nearly £1 $\frac{3}{4}$ millions, or about £9 a head. A majority of the population is negro or coloured, and among the whites there is a strong element of French descent.¹

Position and General Conditions.—The Windward Islands form a chain enclosing the Caribbean Sea to the south-east, and lie in latitudes 12° to 14° N., between Martinique and Trinidad. They are mountainous in character and have a rich volcanic soil and a healthy climate. Hurricanes are less frequent than in the Leeward Islands, especially in Grenada, which lies farthest south.

Human and Economic Conditions.—The *sugar* output from the Windward Islands is considerable, and the abandoned large estates have been purchased by Government and cut up into small holdings. Grenada is the most productive member of the group, having, like the neighbouring island of Trinidad, a growing *cacao* industry. The export of cacao is worth £300,000, and the island has also a valuable trade in spices, principally *nutmeg*, worth over £150,000 annually. Both Grenada and St. Vincent grow sea-island **cotton** (nearly 1,000 bales), that of St. Vincent being the

¹ For Map see Leeward Islands.

Bulgaria.

best in the Empire. The same island is famed for its production of *arrowroot* of very high quality. St. Lucia also grows some cacao, besides limes and sugar, and planters are beginning to pay more attention to *coco-nuts*. On this island the chief seaport, Castries, is found: it is a coaling and supply station, the tonnage entered and cleared being over $1\frac{1}{4}$ million, of which 70 per cent. is British.

Trade Relations and General Information.—As elsewhere in the Indies, a high proportion of the imports come from the United States, while the exports go mainly to the United Kingdom, Canada having the third place in both export and import trade. In the case of Grenada, however, an unusually large proportion of the exports go to the States, as they offer a large market for the staple product, cacao. British and American gold are legal currency, and British silver and copper. The Royal Bank of Canada and Barclays Bank operate in the islands, and issue 5-dollar notes. There is cable connection with the other West Indies and indirectly with Britain. Mails reach the Windward Islands in 13 to 20 days. There are Imperial Trade Correspondents at St. Lucia, St. Vincent, and Grenada.

BRUNEI

See **British Borneo**, p. 68.

. BULGARIA

Area and Population.—The Kingdom of Bulgaria, which is governed by a Tsar, has an area of about 40,000 square miles, i.e. it is about $1\frac{1}{4}$ times the size of Scotland, while its population, barely $5\frac{1}{2}$ millions, is half a million more than that found north of the Tweed. The boundaries of Bulgaria have been repeatedly shifted during the present century, and as a result of the Great War, territory was lost to Rumania (part of the Dobruja) and to Greece (part of Thrace). As a consequence, Bulgaria has no longer any outlet to the *Ægean* Sea. The pre-war trade was about £15 millions, or some £3 a head, its general character being an exchange of foodstuffs and raw materials for manufactures. This figure was reached again in 1927, and is now about £20 millions. The principal town, Sofia, lies in a mountain-girt plateau, far inland, but its population now numbers well over 200,000. The other leading centres are Philippopolis, in Eastern Rumelia, Varna, the chief seaport, and Ruschuk, a river-port on the Danube, which are about the size of an average English county town, i.e. with 40–50,000 inhabitants. The Bulgars are of Slavonic race, and speak a Slavonic language, although they take their name from a Tatar horde who conquered the country in the seventh century, but became merged in the subject peoples. There are also Turks and Greeks along the seaboard and in the towns. The prevailing religion is that of the Orthodox Greek Church. The percentage of illiterates among the older generation is high, but it is much less among the younger adults, and the great majority of children are now under instruction.

Position and General Physical Conditions.—Bulgaria occupies the eastern half of the Balkan Peninsula, lying between latitudes $41\frac{1}{2}^{\circ}$ N. and 44° N., i.e. in the latitudes of Northern Spain. The Balkan

Canada.

but did not continue, and the future of the industry is doubtful. **Iron** ore is abundant, and copper, manganese, lead and zinc deposits are exploited on a small scale. All minerals belong to the State.

Apart from a few isolated factories, e.g. for woollens at Sliven and for cottons at Varna, besides flour-mills, saw-mills, breweries and small engineering shops, industry in Bulgaria is still in the handicraft stage. Bulgarian woollen homespun and embroideries find a market, but are largely being superseded by cheap imported textiles.

Trade Relations.—The main railway route through Central Europe to Constantinople passes via Belgrad through Sofia and Eastern Rumelia, and much of the trade of Bulgaria is with Austria and Germany, which import cereals, timber, cattle, tobacco and eggs in return for textiles and hardware. Greece also affords a steady market for Bulgarian produce, while Czechoslovakia competes in supplying manufactured goods. The Danube affords a route-way to Hungary and Austria, while sea-board trade is through the Black Sea ports of Varna and Burgas, and thence by the Mediterranean to Italy, Great Britain and Belgium. At present Britain takes little beyond attar of roses, although supplying goods to the value of nearly £1 million.

General Information.—The monetary unit of Bulgaria is the *lev*, equivalent to the gold franc; 25.22 *leva* normally equal one pound sterling. Foreign gold francs are in circulation, but the currency is now mainly paper, issued by the National Bank at Sofia. The Westminster Bank is agent for the General Bank of Bulgaria. The Midland Bank for the Banque Franco-Bulgare pour le Commerce International.

The metric system is in general use. Mails take three days to reach Sofia. There are British Vice-Consuls at Sofia, Burgas and Varna. Bulgaria is a member of the League of Nations.

BURMA

See **India**, p. 255.

CAMEROONS

See **French Equatorial Africa**, p. 188.

CANADA.

Area and Population.—The Dominion of Canada comprises nine Provinces—Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia—and two Territories, the North-West Territory and Yukon. It has an area of 3½ million square miles, as compared with Australia and the United States, which each cover about 3 million square miles. About one-third of Canada, however, is in such high latitudes (north of parallel 60°) as to have potentialities only in the direction of lumbering, hunting, fishing and mining, while of the remainder, vast tracts remain to be settled as communications are opened up. Broadly speaking it may be said that east of Winnipeg the population is found between parallels 42° and 49° N.: west of Winnipeg,

Canada.

between parallels 49° and 55° N. The population is estimated at $9\frac{1}{2}$ millions, an increase of 70 per cent. during the twentieth century. Of this number, about 6 millions are Canadian born, $\frac{3}{4}$ million from the United Kingdom, between $\frac{1}{4}$ and $\frac{1}{2}$ million from the United States, and about the same number from various parts of Europe. There are also about 50,000 Orientals—chiefly Chinese and Japanese—who are settled in British Columbia, and 110,000 aboriginals, North American Indians and Eskimos. Nearly 2 millions of the Canadian born are French-speaking, and of French ancestry, and in the Province of Quebec they form the majority of the rural population.

The external trade of Canada reached the maximum figure of 2,654 million dollars, approximately £530 millions, in 1928-9, which represents £55 per head of population. Such a *per capita* trade is unusually high, and

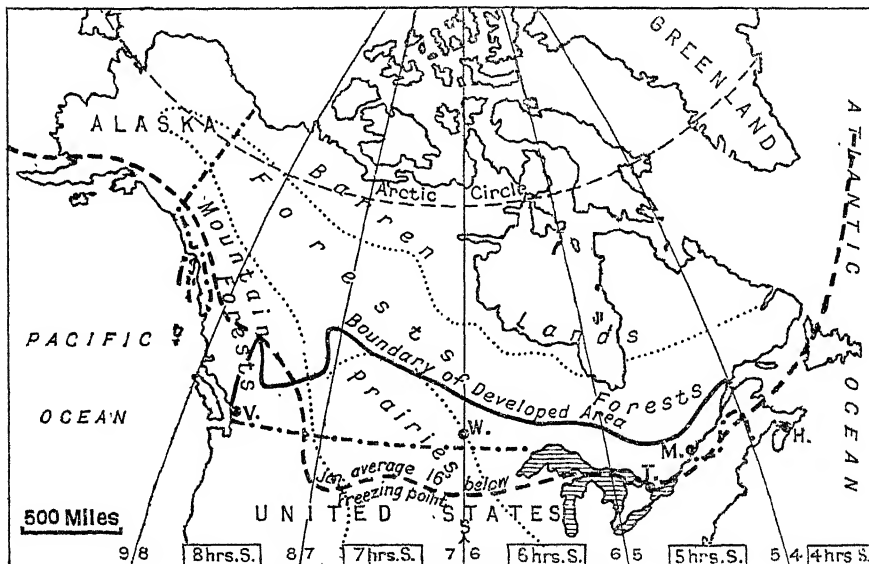


FIG. 24.—CANADA : NATURAL REGIONS.

may be compared with the figure of £20 for British South Africa (with a coloured majority), £50 for Australia, £46 for Great Britain, and £59 for Belgium. There is also an enormous internal trade between the various Canadian Provinces. The Dominion Capital is Ottawa, the sixth city in point of magnitude, with 120,000 inhabitants. Montreal and Toronto rank first from a commercial standpoint.

Position and Climate.—Canada occupies the northern part of the Continent of North America—stretching from within the Arctic Circle to latitude 42° N.—the latitude of Rome. Neighbouring countries are the island Dominion of Newfoundland, the United States of America—having a frontier merely of river, lake, and land—and the United States Territory of Alaska. Across the Atlantic, Canada faces Great Britain and France, across the Pacific, Siberia and Japan.

Three types of climate may be distinguished in southern, i.e. occupied

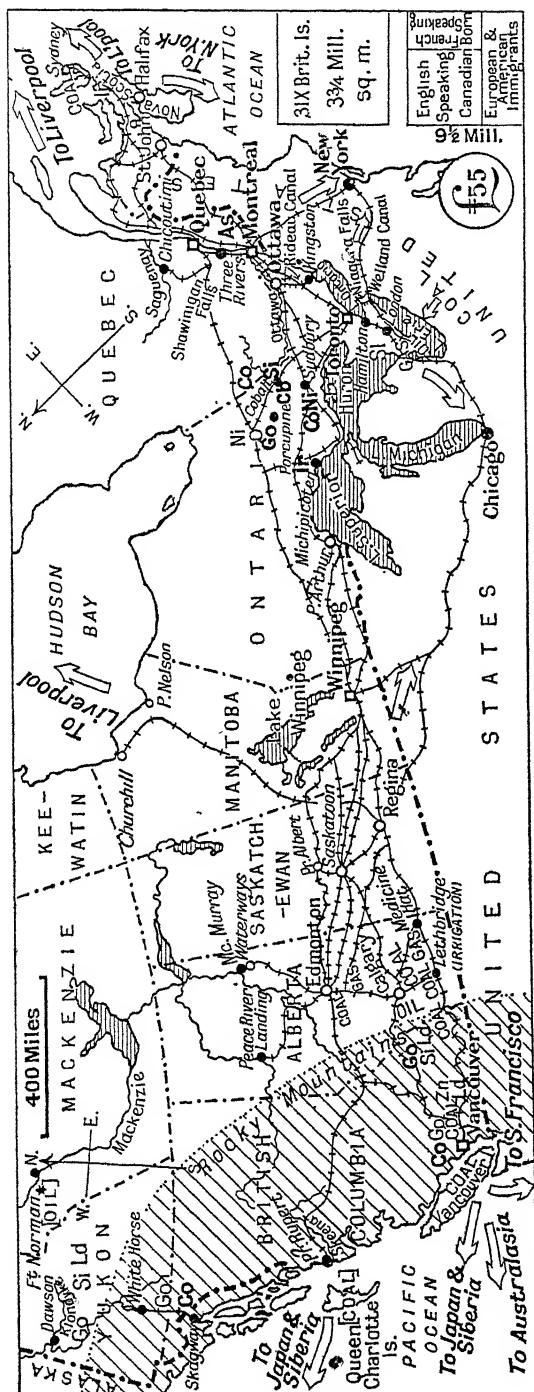


FIG. 25.—CANADA: MINERALS AND COMMUNICATIONS.

Canada. The first is the climate of Eastern Canada, including the provinces of Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Ontario. It is a climate of extremes, hot summers, cold winters, with plenty of rain and deep snow. It is modified in the three Maritime Provinces, where owing to the great length of seaboard these extremes are somewhat moderated, and sudden changes of temperature, e.g., late frosts, are rare. Hence the seaports here—Halifax and St. John—are open in winter, whereas Quebec and Montreal are closed by ice.

The "eastern" type of climate is also modified in the Lake Peninsula—that part of Ontario which lies between Lakes Huron, Erie and Ontario. Here owing to the more southerly latitude the summer sun has greater power, and owing to the great sheets of water almost surrounding the land sudden changes of temperature are here also rare. Consequently it is in the two last-named (modified "eastern") regions that the most famous fruit-growing belts of the Dominion occur.

The second type of climate is that of the prairies, and

Canada.

includes the Provinces of Manitoba, Saskatchewan and Alberta. The summers are hot, the winters very cold, there is a moderate rainfall in spring and early summer, and a light snowfall in winter. The weather, owing to the dry atmosphere, is peculiarly bright and exhilarating. Towards the north of the provinces the length of winter increases, but owing to the high latitude, the summer days are very long and hence crops grow very fast. Towards the south-west of Alberta the rainfall diminishes to such an extent that irrigation becomes necessary for really successful agriculture.

The third type of climate is that of the Rocky Mountains and Pacific region, including the Province of British Columbia. Along the seaboard it is mild and rainy, as in Great Britain: up on the high mountains it is cold and sunny, with heavy snow in winter: in the valleys sheltered from the sea-winds it is very dry and sunny, and free from any great extremes of heat and cold. The warm westerly winds and warm ocean drift keep the shores of British Columbia always ice-free, so that the ports of Vancouver and Prince Rupert remain open, while the S. Lawrence estuary and Great Lakes are ice-bound for four or five months of the year.

General Physical Conditions.—The physical features and mineral wealth of Canada are very closely dependent on the geological structure, which will therefore be briefly described. The Maritime Provinces form the northern fringe of the Appalachian Mountain System of the United States. The rocks are old and are very much folded and crumpled. The mountains have been worn down to smooth rounded outlines, and a rich soil has accumulated in the valleys. Finally the whole region has subsided and the sea has entered the main valleys, e.g. the Bay of Fundy, thus separating off Nova Scotia, Cape Breton Island and Prince Edward Island, and providing many deep, sheltered harbours. As in the United States, this geological division has coal, iron and limestone.

The second region is outlined by a fringe of waters—lakes and rivers. Commencing in the north-west, Great Bear Lake, Great Slave Lake, and Lake Athabasca form a series overflowing to the Mackenzie river system. Lakes Winnipegosis, Winnipeg and Lake of the Woods have an outlet by the Nelson to Hudson Bay, while the Great Lakes—Superior, Huron, Erie, Ontario—form a chain from which the S. Lawrence flows with widening estuary to enter the Atlantic about latitude 50° N. Within this vast semicircle of waters is a surface of very ancient rocks, worn smooth for the most part, but rising to a considerable elevation in the Laurentian Highlands to the north of the S. Lawrence. The rocks are too old to contain coal measures, but they are rich in various precious, semi-precious, and base metals. The region has been scoured by a great ice-sheet in a past age, and is irregularly and very locally covered with a mantle of fertile boulder-clay. Moreover, the ice-scouring has caused irregularities in the river-beds, which result in water-falls, so that this is a region of almost limitless water-power.

The third physical region—the great plains or prairies—forms a triangular wedge between the fringing lakes and the Rocky Mountains. It is built of sedimentary rocks lying almost horizontally, and shaped into a rolling country by the rivers that cut wide valleys across them. The elevation of the plains gradually increases from 800 ft. in the east to 3,000 ft. at the

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foot-hills of the Rocky Mountains. The rocks include coal-measures, of which there are vast beds; they are in places impregnated with natural gas, and it is possible that they will also yield oil in abundance. The soil is a rich deep loam, and in the Red River valley of Manitoba, once a lake bed, it is composed of fine alluvium of great fertility.

The fourth physical region is that of the Rocky Mountains. Here there are well-defined trend lines—the lofty mountains, deep valleys, coastline and bordering islands have their axes from north-west to south-east, although there are exceptional valleys, e.g. the Middle Fraser and the Okanagan Valley, which cut the region obliquely in a north-south direction. The country combines the aspects of Switzerland and Norway, with its snow-clad peaks, glaciers, and deep narrow lakes as in the Alps, and its fiord-fringed coast with innumerable off-shore islands and sheltered sounds, as in West Scandinavia. Like the two countries it resembles, British Columbia has an abundance of water-power.

The prairie lands of Manitoba, Saskatchewan and Alberta are clothed with natural pasture, almost treeless in the south and south-west (where it is driest), but becoming more park-like to the north and north-east, where the grassland is dotted with woods and copses, and gradually merges into the great forest which covers the rest of the country, save for the Barren Lands in the Far North. These forests are of softwoods—larch, spruce, hemlock, fir and pine—but in south-east Canada, round the lower Lakes and in the Maritime Provinces, there is an admixture of hardwoods—oak, elm, beech, maple and poplar. It is in this eastern region of mixed forests, the longest settled, that the greatest proportion of land has been cleared for agriculture. In the western mountain zone, in spite of the mild climate at low elevations, coniferous (softwood) trees predominate, but near the coast they often assume giant proportions, e.g. in the case of the Douglas fir and the red and yellow cedars.

Human and Economic Conditions.—In spite of the rapid growth of her lumbering, pastoral, mining and manufacturing activities, Canada is pre-eminently an agricultural country. **Wheat** and wheat-flour account for 30 per cent. of her enormous export trade. Saskatchewan, Manitoba and Alberta (the Prairie Provinces) are, in the order named, the chief wheat-producing areas, and Winnipeg, commanding the gateway to these provinces, and hence the chief collecting and distributing centre, has 180,000 inhabitants, being the fourth city in the Dominion. Ontario has a much smaller area under wheat, but the yield per acre is higher, owing to the more intensive methods of farming practised in the longer settled east.

Canada's yield of about 500 million bushels of wheat (470 million in 1923, 530 million in 1928) is 12 per cent. of the total world production, and no less than 40 per cent. of the world's exportable surplus.

The second cereal in point of acreage (over 450 million bushels in 1928), is **oats**, which are largely utilized within the Dominion for feeding stock. Here again Saskatchewan, the region of most phenomenal growth during the last three decades, holds the first place, but Ontario is second and Quebec fourth, for these two moister regions are pre-eminently the dairy countries of Canada, and take the lead also in *hay, clover and potatoes*.

Of the 10 million **cattle** in the Dominion, nearly 4 million are milch cows, and the 1928 production of **cheese, butter, preserved milk and cream** was valued at £27 millions, nearly two-thirds being retained for home con-

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sumption. Since hog-raising can be profitably combined both with dairying and cereal farming, the number of **pigs** has risen to over 4 millions, a ratio of pigs to persons of 1 to 2½, which is higher even than that in Ireland. The home consumption is, however, high, and the exportable surplus of bacon, hams and lard is worth only about £3 millions. *Beef* cattle are very largely raised in Saskatchewan and Alberta, for these, the drier of the prairie provinces, have still many large ranches, where the young steers range all the year, feeding on the rich grasses in summer, and in winter upon the natural hay which is formed in autumn. The warm, dry *chinook* wind which blows down from the Rockies prevents any depth of snow accumulating on the ground in winter. The beef export is worth £1½ millions, the beasts being slaughtered at Montreal. Live cattle are also exported for slaughter purposes.

There is, however, in Canada a growing tendency towards mixed farming, as opposed to carrying on tillage or stock-raising alone. This change has been necessitated by the partial exhaustion of the soil in the older wheat-lands, whereby rotation of crops and the use of fertilisers was seen to be

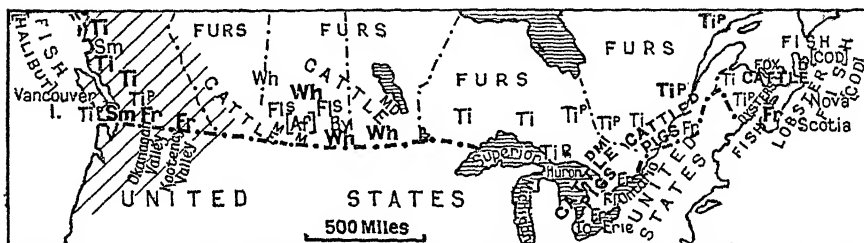


FIG. 26.—CANADA : AGRICULTURE.

desirable. The result is that meat-packing establishments and creameries are now to be found throughout the prairie provinces, and the cattle have spread eastwards from the drier west, while the practice of dry-farming, the improvement of breeds of wheat, and the construction of irrigation works have all led to the westward advance of the plough. **Alfalfa** is a fodder crop peculiarly suited to regions of low rainfall, **flax** is widely grown for linseed in Saskatchewan and Manitoba, and maize as a green crop in Manitoba. Lethbridge, on the C.P.R., is a centre at which the Government has established *irrigation* works, for there is abundance of water in the foot-hills of the Rockies, which can be utilised on the prairies, as has been done so successfully in the United States.

The spread of grain cultivation northwards, with the opening of the two more northern transcontinental railways, has been attended by remarkable and, to many people, unexpected success. In the higher latitudes it is found that the long hours of summer daylight cause the crops to ripen more quickly than farther south, so that the prolongation of the winter season is immaterial.

The three leading **fruit** areas of the Dominion are in regions free from the rapid temperature changes that mark the prairies. Nova Scotia has its famous *apple* orchards (in the Annapolis valley), from which there is a large export: the Lake Peninsula of Ontario has *peach* orchards and vine-

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yards, besides producing apples, pears, plums, cherries, tomatoes, and soft fruits: British Columbia has *apple* orchards, and soft fruits, and in the dry sheltered valleys such as Okanagan has peaches, grapes, apricots, plums and tomatoes, grown partly under irrigation, and marketed in the Prairie Provinces.

On the Canadian farm, particularly in the West, there is commonly electric light and telephone installation, the farmer owns one or more motor cars and trucks, while cultivation is by means of tractors and stationary engines. The standard of living and of culture is usually relatively high, so that the classes of goods in demand differ greatly from those required by the average European farmer.

Canada's vast untouched forests, found in combination with cheap water transport and cheap power, make her *lumbering* and derived industries the most important in the world. Sawn lumber (including laths, shingles, staves, etc.), wood pulp and paper together make up an export worth £26 millions. A recent feature has been the remarkable development of the local consumption of wood pulp in the manufacture of *paper* and especially of newsprint. Since 1914 the export of the latter has leapt ahead of that of Norway and Sweden combined, nearly the whole going to the United States, where the demand is enormous. By 1929 Canada was producing one-third of the world's supply of newsprint, and the question of restricting output has arisen. The Shawinigan Falls on the St. Maurice River, the Montmorency Falls near Quebec, the Chaudière Falls near Ottawa, and the Saguenay River Falls farther east are among the most noted of the power centres where there are sawmills, pulp and paper mills, while at Sault Ste. Marie between the two upper Great Lakes, is the greatest pulp mill in the world. British Columbia, with forests and waterfalls on the seaboard itself, has also exceptional advantages which have been seized upon by manufacturers, and the somewhat neglected Maritime Provinces, notably New Brunswick, now have their great pulp mills. In this industry, as in so many others, it is the growing custom of United States firms to set up a branch plant in the Dominion. The comparatively treeless prairies offer a very large market for the lumber of the west and east.

The remoter parts of the forests, and especially the Mackenzie Basin, are still rich in furred animals—fox, lynx, bear, skunk, mink, marten, besides the rarer ermine and beaver—and these are systematically hunted and trapped, the export of *furs* amounting to £4–5 millions. Fox-ranching has proved highly successful in Prince Edward Island, and has extended to other parts of the country and to other animals. Large fur auctions are now held regularly at Montreal and Winnipeg. The severe winters make furred garments a necessity rather than a luxury.

Owing to its position in high latitudes the *fisheries* of Canada, both in the seas and in inland waters, are very important, the products being valued at £10–11 millions, of which over half is exported. British Columbia takes the lead, with the great *salmon* fishing and canning industry of the Fraser and Skeena Rivers, and the *halibut* industry along the coast. The latter has shown a decline, and protective measures are under consideration: the centre is Prince Rupert, the terminus of the Northern Railway, where there is a large freezing plant. Nova Scotia sends out fishing fleets from Halifax, Yarmouth, and lesser ports, to the shallow banks which fringe Eastern Canada, and are rich in *cod*. Haddock, herrings and hake are

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also important as in the similar fishing grounds of the North Sea. Inshore there are very valuable **lobster** fisheries, giving rise to a canning industry, and in many of the shallow, sheltered bays there are **oyster** beds. New Brunswick and Prince Edward Island share in these fisheries on a smaller scale.

The *mining* enterprises of Canada yield products valued in 1928 at £54 millions, and there is no doubt that further valuable discoveries will be made in areas so far unprospected. Over one-third of the total output is from Ontario, which possesses, to the north of Lake Huron, one of the richest mining districts in the world. There are **nickel** mines at Sudbury, in which **copper** is also found, and the same metals also occur at Cobalt together with large quantities of *silver*, *cobalt*, and *arsenic*. **Gold** is found farther north at Porcupine and Kirkland Lake, and in this neighbourhood further large nickel mines are worked, while at Michipicoten, on the north shore of Lake Superior, the largest **iron** deposit in the Dominion occurs, although it remained unworked. Canada has a virtual monopoly of nickel, cobalt and arsenic, a factor of importance in the development of her steel industry. The great age of the rocks of Central Canada precludes the discovery of coal in this great mining region, but the coal-mines of the United States are conveniently placed on the opposite shores of the Lakes, and there is a considerable import, not only for smelting the metals, but for domestic purposes. Canada's longest-known **coal**-mines lie at the two extremes of the Dominion, in Nova Scotia and Vancouver Island. The leading coal-mines were formerly those of Nova Scotia, but now the output from the Alberta mines (near Edmonton and Calgary) is nearly as great, while British Columbia ranks third. The coal raised is 16-17 million tons annually. Vancouver coal is handled at the port of Nanaimo.

The Rocky Mountains contain, besides coal, an abundance of silver-lead, zinc, copper and gold. British Columbia, ranking second as regards total output, produces nearly half the Dominion's **copper**, and like the more famous Klondyke District of Yukon Territory farther north, has valuable **gold** mines, besides *silver-lead* and *zinc* mines. Quebec produces *magnesite*, *chromite*, and *molybdenum*, all of importance in the iron and steel industry, and a large copper field (Rouyn) has recently been opened up near the western boundary of the Province.

Of non-metallic minerals, **asbestos** ranks next to coal, Southern Quebec producing 85 per cent. of the total world supply. The same Province is a leading source of the world's *mica*, essential to electrical industries. *Natural gas* is an important asset to many of the prairie towns, e.g. Medicine Hat and Calgary—and there is strong probability that the *oil*-field discovered in the west of the Great Plains (Turner Valley) will be highly productive. There is a small field in the south of the Lake Peninsula, where there is also *gas*: the output is 600,000 barrels. The total value of the various minerals in 1917, reckoned in millions sterling, was as follows: Nickel, £6½, copper £6, silver £3½, gold £3, coal £9½, asbestos £1½. In 1928 the values were: Nickel £4½, copper £5½, silver £2½, gold £7½, coal £12½, asbestos £2, lead £3, zinc £2, all in millions sterling. In tin alone is Canada lacking.

The output of the **manufacturing** establishments of Canada is valued at £700 millions, of which the greater part is consumed within the Dominion. There is, however, a growing export of Canadian manufactures, especially

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to other parts of the British Dominions, and in the case of special products, e.g. paper, to the United States. The important part played by cheap electric power has already been touched upon, and figures are available showing the power in operation in 1924. Ontario had the first place, with 1,445,480 h.p. developed, of which 450,000 h.p. is supplied by the plants, owned by the Provincial Government, built on the Canadian side of the Niagara Falls, in the Lake Peninsula. Quebec, with numerous rivers dropping from the Laurentian Highlands to the level of the St. Lawrence, had the second place with 1,116,398 h.p., and British Columbia the third with 355,517 h.p. The three provinces stand in the same order as regards manufacturing importance. The developments for 1924 included 320,000 h.p. at the Grand Falls on the Saguenay River and installations on the St. Maurice, Ottawa and Abitibi Rivers to supply power to the pulp mills and mines. By 1929 the total h.p. had risen a further 2 million to 5½ million. Quebec had advanced to the first place, Ontario coming second, British Columbia third, and Manitoba fourth with 300,000 h.p. developed.

The number of persons employed in industry is nearly 700,000 (nearly 8 per cent. of the population), a large proportion being absorbed by the flour and saw mills, creameries, cheese, paper and pulp factories. The *textile* industries, and the numerous branches of the *iron* and *steel* industry are, however, very important. There is no such great concentration of individual industries in a single area as occurs in Britain, but the *cotton* manufacture centres largely in the Province of Quebec, in the Eastern Townships and in the St. Lawrence valley, where Montreal (nearly 1 million inhabitants) is the leading commercial city of the Dominion. The raw cotton is necessarily imported, as is much of the wool, since there are only about 3 million sheep scattered through the country. A large number of iron and steel works are found in the Lake Peninsula of Ontario, where Toronto (550,000 inhabitants) is the leading manufacturing centre. It is the main port of entry for United States trade, and has splendid facilities for communication by water and rail both with the States and with other parts of the Dominion. (The part played in Canada's industrial development by the propinquity of the States cannot be overlooked, for in addition to material "goods" there enter by the frontier ports such immaterial yet valuable things as ideas and methods, skill and experience.) Toronto has iron foundries and agricultural implement works, shipbuilding yards and railway shops, while Hamilton (122,000 population) farther along the Lake shore, has rolling and planing mills, iron implement and sewing-machine factories, and Kingston, the lake port for the Rideau Canal to Ottawa, has also steel works and engineering shops. London (60,000 population), on the main railway route to the States, is another iron and steel manufacturing town. There are, besides, the enormous Dominion Iron and Steel Works at Sydney, Cape Breton Island, using local coal and Newfoundland iron-ore, while the iron deposits of Lake Superior have led to smelting at Port Colborne and to the erection of iron and steel works at Sault Ste. Marie, although at present the ore as well as the coal comes from the U.S.A. side of the Lakes. Proposals are also being made for the establishment of a large-scale industry in British Columbia, where there are both coal and iron. The output of pig-iron varies from three-quarters to one million short tons.

Following the textile and iron and steel industries, the leather trade,

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principally *boots and shoes*, is of great importance, but the complete list of the Dominion manufactures would include almost every article, from wire nails to pianos and automobiles, the latter from Windsor, the Canadian suburb of Detroit. Mention should be made of the *chemical industries*, including the electrolytic extraction of *aluminium* at Shawinigan Falls, and the fertilizer and cyanide works at Niagara Falls. The large deposits of *salt* in the Lake Peninsula (S.W. Ontario) have also led to the erection of chemical factories. *Smelting and metallurgical industries* are naturally important, and there are large works at Trail, British Columbia, and Port Colborne, Ontario. Canada still, however, forms an important market for manufactures, purchasing abroad iron and steel goods to the value of £46 millions, and textiles to the value of £50 millions. The bulk of the former class, and a large proportion of the latter, is obtained from the United States—partly owing to the similarity of needs and tastes in the two countries and partly as a result of proximity.

The inland transport system is also largely under government direction, since in a country of such vast distances, having such bulky staple products, railway construction must precede and not follow settlement. The Canadian National Railway runs from Quebec to Winnipeg through the hitherto untouched clay belt to the north of the settled areas of Quebec and Ontario, and the Government is completing the railway from Saskatchewan to Fort Churchill, Hudson Bay, which will give a shorter route to Europe for the wheat crop during the summer months. Of the two lines, with their branches, that have thrown open the more northern parts of Saskatchewan and Alberta, and which go through the Yellowhead Pass into British Columbia, the Grand Trunk Pacific and the Canadian Northern have become part of the Canadian National Railways. The Canadian Pacific Railway is privately owned. The railway network is now very complete in the densely peopled parts of Quebec and Ontario, and in the south of the Prairie Provinces, and there are nearly two thousand miles of electric railways in operation besides the main steam lines. There is also connection at numerous points with the railway system of the United States.

Canada shares with the States the unrivalled waterway afforded by the Great Lakes and St. Lawrence River. Ocean-going steamers drawing 35 ft. ascend to Montreal, where the Lachine rapids necessitate the construction of a canal. From this point up to Lake Erie, navigation is by small steamers drawing not more than 14 ft., a limit set by the Welland Canal, constructed by the Government to surmount the obstacle of the Niagara Falls and Gorge. Above this point larger vessels drawing 20 ft. can ply on the remaining four lakes, for this is the depth of the "Soo" Canals which avoid the rapids between Huron and Superior. The work of making a new Welland Canal of 30 ft. depth is practically complete, and there is little doubt that some early date will see the locking of the St. Lawrence between Kingston and Montreal and the construction of channels allowing ocean-going vessels to ascend without breaking bulk as far as Port Arthur and Duluth, the watergates of the grain belt. An international joint commission has jurisdiction over the boundary waters between Canada and the United States, and in their use precedence is given in the following order, (1) for domestic and sanitary purposes, (2) for navigation, (3) for power and irrigation.

Trade Relations.—Canadian trade relations have undergone

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very considerable changes during the last twenty years. Before the War, 45 per cent. of the exports went to Great Britain, and 42 per cent. to the United States ; only 13 per cent. remained for wider distribution. During the War, 54 per cent. went to Great Britain, and 25 per cent. to the United States, leaving 21 per cent. for other countries. The latest figures show only 31·5 per cent. going to Great Britain, and 36·7 per cent. to the States, i.e. nearly a third of the total goes directly to other markets, the countries including (in order of importance) Germany, Holland, Japan, Belgium, China, Italy, Australia, New Zealand, Argentina, S. Africa, Greece and British India.

The import trade is quite differently distributed. Nearly five-sixths of Canada's imports come from the two countries dominating the export market, but whereas the United States percentage is 68·6, that of Great Britain is only 15·3. The 16 per cent. of imports remaining come from France, Germany, Japan, New Zealand, Belgium and British India. Yet during the War, 82 per cent. of the imports came from the States, no more than 8½ per cent. from Great Britain, and a mere 9¾ per cent. from other sources. Before the War, the United States percentage was 66, not far from that of to-day, while the British percentage was 20—higher than it has ever been since.

Canada demands exactly the classes of goods that Great Britain wishes to market, but quite apart from any question of price differences, the facilities for intercourse between Canadians and Americans, and the circulation of American advertising media, such as magazines, journals, and mail order catalogues, throughout Canada, naturally leads to a similarity of tastes and fashions in the two countries. Expert opinion is to the effect that British manufactures could be marketed in Canada even in the face of United States competition provided capable agents are appointed. It should be realized that the East and the West must be treated as two distinct territories, Toronto or Montreal being appropriate centres for the former, Winnipeg or Vancouver for the latter.

All the Canadian harbours, including Halifax, St. John, Sydney, Montreal and Quebec in the east ; Vancouver, Victoria, Esquimalt and Prince Rupert in the west, are excellently equipped, and capable of accommodating the largest vessels. Canada's major transport problem, aggravated by the winter closing of the waterways, is the movement of the vast grain harvest from the Prairies. The opening of the Panama Canal led to the use of Vancouver as a grain port, and this city has grown very rapidly, now ranking third in point of size. The Hudson Bay railway scheme, long in abeyance, has been revived, and Churchill has been substituted for Port Nelson as the northern terminal, owing to its natural deep water harbour. Efforts have been made to establish direct Canadian shipping services to leading countries in connexion with the National Railroads and Canadian Pacific lines, although the ambitious programme for a Government Merchant Service conceived in 1920 was not proceeded with.

General Information.—The money unit in Canada is the dollar of 100 cents, the value of which is fixed by law : 4·86½ dollars equal one gold sovereign. There is a Mint at Ottawa, issuing gold, silver and bronze coins, and the Dominion Government issues 5, 4, 2, 1 dollar, and 25-cent. notes. The Banks are allowed, under stringent conditions, to issue notes of 5 dollars and upwards. The legal weights and measures are those of the

Canary Islands.

United Kingdom, except that the hundredweight is declared to be 100 lb., and the ton 2,000 lb. (short ton), as in the United States.

The chief banking establishments include the Royal Bank of Canada, the Bank of Montreal and the Canadian Bank of Commerce, all with London offices. Subsidized mail steamers bring Montreal within eight days of London, and within eighteen days of Yokohama, Japan. There are British Trade Commissioners at Montreal, Toronto, Vancouver and Winnipeg, and Imperial Trade Correspondents at Calgary, St. John, Halifax and Quebec. The High Commissioner, and the Agents-General for the respective Provinces answer trade enquiries in London. Canada is a Member of the League of Nations.

CANARY ISLANDS

Area and Population.—The Canary Islands rank as a Province of Spain, and cover an area of 2,800 square miles, supporting over half a million people. The chief islands are Teneriffe, Grand Canary, Palma, Hierro, Gomera, Fuerteventura and Lanzarote. The chief port and seat of government is Santa Cruz de Teneriffe, with 82,000 inhabitants. Las Palmas on Grand Canary has 70,000: both are important bunkering and calling stations for vessels bound to and from Cape Town and South America. All the ports are free. Separate figures for the trade of the Canaries are not available, but the islands are normally prosperous, and the total must run into several millions, there being an import of ships' stores and luxury articles (for the foreign tourists and winter residents), as well as of necessities for the islanders. The latter are mainly of Spanish blood, and the Spanish language is spoken.

Position and General Information.—The Canaries lie in latitude 29°N. and longitude 14°–18° W., some 60 miles from the desert coast of Africa. For the greater part of the year they are in the trade wind belt, and the weather is hot, dry and sunny. In mid-winter they receive some rainfall from the stormy Atlantic winds, but on the whole there is a deficiency of water, and many parts of the islands bear almost a desert aspect. Where, however, the land is watered, either naturally or artificially, by springs or streams, and where, as on the upper slopes of the volcanic peaks (e.g. Teneriffe), the clouds rest and moisten the soil, the vegetation is luxuriant, and consists of palms, evergreen trees and flowering shrubs.

Apart from the tourist traffic and port activities, the chief industry of the Canaries is agriculture, irrigated land commanding a very high price. The wine and cochineal industries, formerly of importance, have declined, their place being taken by the cultivation of *fruit* and *vegetables*. These are supplied to ships, and are also exported to the extent of tens of thousands of tons. *Bananas* and *tomatoes* are of first importance, followed by early *potatoes* and *onions*. All these find a ready market in Great Britain, as well as in Spain, and the former country plays an important part in supplying the coal, textiles, hardware, building materials and miscellaneous manufactured goods which are in demand. Fertilizers come from Germany and Great Britain, timber for packing from the Baltic, peat mould and straw for the same purpose from Germany and France respectively. The competition of the West Indian banana has latterly been severely felt.

Currency, weights and measures are as in Spain. The Bank of British

Ceylon.

West Africa has branches at Las Palmas and Santa Cruz. The Canaries are an important cable station between Europe and Africa, and between Europe and South America. Mails take 6-9 days in transit.

There are British Consuls at Las Palmas and Santa Cruz, Vice-Consuls at Orotava (on Teneriffe) and Santa Cruz de la Palma.

CAPE OF GOOD HOPE

See **British South Africa**, p. 78.

CAPE VERDE ISLANDS

See **Verde Islands, Cape**, p. 462.

CAROLINE ISLANDS

See **Japanese Pacific Islands**, p. 287.

CAYMAN ISLANDS

See **British West Indies (Jamaica)**, p. 87.

CELEBES

See **Dutch East Indies**, p. 152.

CENTRAL PROVINCES

See **India**, p. 255.

CEYLON

Area and Population.—The British Colony of Ceylon (administered by a Governor-General) lies off the south-east extremity of India, in the Indian Ocean, and has an area of nearly 25,000 square miles, or rather more than a fifth that of the British Isles. The population is about 5 millions, i.e. rather less than that of Scotland. The most important elements are the native Sinhalese, numbering about $3\frac{1}{2}$ millions, and the Tamils—immigrants from Southern India—numbering 1·4 millions. The latter supply the bulk of the coolie labour on the plantations ($\frac{3}{4}$ million) and in the cities. There are about 11,000 Europeans.

The chief seaport and entrepôt, Colombo, has a population of 244,000; Jaffna and Gallé, at the northern and southern extremities of the island, have each about 40,000; Kandy, the centre for the interior upland plantations, has about 30,000.

The total foreign trade in 1928 was approximately £60 millions, of which exports represented 49 per cent. This gives a per capita trade of £12, far in excess of that of India. The bulk of the exports are of valuable

Ceylon.

plantation products, grown under European direction by imported labour, whereas in India the bulk of the exports comprise the surplus produce grown on the small holdings of an independent peasantry.

Position and Climate.—Ceylon lies between latitudes 6° N and 10° N., and is surrounded by the uniformly warm waters of the Indian Ocean. Hence the climate is always hot, but is prevented by the strong sea breezes from becoming unhealthy or enervating. The alternating currents of the south-west and north-east monsoons sweep across the island, the former from April to June, the latter from September to November, both bringing abundant rains. Even at the change of the monsoon showers are frequent, so that continued heat and moisture foster plant growth through-

out the year. The driest areas are in the north-west and south-east of the island, since these do not face either wind. In the interior the heat is greatly tempered by the elevation of the land, Kandy, for example, being about 5° cooler than Colombo.

General Physical Conditions.

—Ceylon is a mountainous island, rising steeply from the south, and more gently from the north to culminating heights of rather over 8,000 feet. Small rivers radiate from the central mass, cutting deep ravines in the hillsides. The climate promotes a luxuriant growth of dense forest, the trees, including coco-nut and many other palms, teak, bamboos and bananas, often interlaced with creepers. Local timber is largely used for making

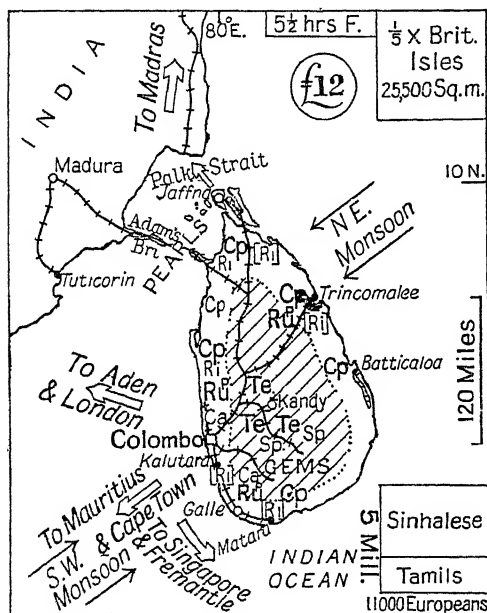


FIG. 27.—CEYLON.

tea-chests. In the drier areas savannah or elephant grass is abundant.

Owing to the configuration and climate, water-power is abundant, and hydro-electric schemes are under consideration.

Human and Economic Conditions.—Nearly one-fifth of the total area of Ceylon is cultivated, there being approximately a million acres under **coco-nuts** alone, which yielded produce for export averaging over £5 millions in 1927. Of these products copra, desiccated coco-nut and coco-nut oil have each a value of over 1 million, while the fresh fruit and coir are also important.

On the flat coastal plain, especially in the south-west and north-east, **rice** is grown by the native farmers, since irrigation is easy. The lower hill slopes are terraced and flooded for the same purpose, the paddy fields covering altogether over $\frac{3}{4}$ million acres. The crop is, however, insufficient,

Ceylon.

and large quantities are imported from Burmah and India for the Tamils, who consider the Sinhalese rice inferior to the Indian.

Next in acreage to the rice fields are the **tea** plantations, which until the era of plantation rubber held unchallenged the foremost place among Ceylon produce. The climate and configuration of Ceylon are ideal for tea, leaf growth being continuous through the year owing to the uniform heat and moisture. The plantations cover nearly $\frac{1}{2}$ million acres, and the Tamil coolies on the plantations number half a million. This labour requirement of one person per acre limits the cultivation of tea to populous areas, although there are many regions with a suitable climate, e.g. the south-eastern United States. The average yield on good plantations is 400–500 lb. an acre, and the shrub can be planted up to an elevation of 7,000 ft. The 1927 export was 227 million lb., valued at £14 millions.

Ceylon was the first country to make a success of plantation-grown, as opposed to wild, hevea **rubber**, and the plantations now cover nearly $\frac{1}{2}$ million acres, yielding 125 million lbs. for export in 1927, an advance of 70 per cent. on the figures for 1917. This export was valued at £8 $\frac{1}{2}$ millions, very nearly the value of the smaller export of 1917, when prices were high.

Productions of secondary importance (export under £400,000) are the *areca nut* (from a species of palm), and *cinnamon*. The 25,000 acres under cinnamon trees in Ceylon supply the world with the essence, the work of gathering the shoots and peeling the bark demanding cheap hand labour. The cinchona industry, once of importance, declined owing to falling prices, and this trade has fallen into the hands of the Dutch planters of Java. *Cacao* plantations do well, although they cover only a small acreage. *Cotton* growing is in the experimental stage, but appears promising.

Although since earliest times Ceylon has been known for its gems—sapphires, rubies and moonstones—the combined value of these is slight, and the trade, centring at Kalutara, is in the hands of the Moors. The only mineral of importance is **plumbago** (graphite), the value of which had risen in 1917 to £1 $\frac{1}{2}$ millions. The competition of Madagascar plumbago, and of cheap graphite from Korea, led to a decline in the industry, and the export now averages only £150,000.

Trade Relations.—A large proportion of the tea, rubber and coco-nut products of Ceylon are shipped to London, but the general tendency for increasing direct shipment to the actual consuming country is evident. Considerable quantities of tea go to Australia, Canada, New Zealand, and British South Africa, besides smaller quantities to Iraq, Egypt and the United States. The latter country takes half the rubber and most of the graphite. Italy is a large buyer of copra and coco-nut oil, while Germany takes copra and graphite and desiccated coco-nut.

The greatest individual share in the import trade (40 per cent.) is that of India (including Burmah), which supplies, besides cottons, large quantities of rice and other native foodstuffs, coal, carpets, blankets, bone manure, tobacco, and so forth. Refined sugar is imported on a large scale from Java. The imports from Great Britain (21 per cent.) are chiefly cotton piece goods, hardware and machinery, besides cigarettes and coal. Mineral oil is supplied from Persia and Borneo, while there is a large demand for fertilizers (over £1 million), filled by Great Britain, the United States, Germany, France and several other countries.

Colombo has a very considerable transit trade, since it is a shipping

Chile.

centre for all the chief points round the Indian Ocean, including East Africa, Aden, the Persian Gulf, India, the Straits Settlements, Dutch Indies and Western Australia. The tonnage entered and cleared is 21 millions annually, of which 60 per cent. is British. It is also the focus of the Ceylon railway system (834 miles), lines running northwards and southwards to Jafna and Gallé, and inland to Kandy and the tea plantations. The recent extension to Trincomalee and Batticaloa on the east coast will open up the great Kantale forest and the eastern maritime district.

General Information.—The banking establishments of Ceylon are the Mercantile Bank of India, National Bank of India, Imperial Bank of India, Hong-Kong and Shanghai Banking Corporation, and the Chartered Bank of India, Australia and China. The weights and measures are those of the United Kingdom, and the unit of currency is the silver rupee, equivalent normally to one-fifteenth of the English gold sovereign (1s. 4d.). Ceylon Government notes from 1 to 1,000 rupees are also in circulation. The mails to Colombo take 16-18 days, via Marseilles.

The Imperial Trade Commissioner for Ceylon resides at Calcutta. There is a Trade Correspondent at Colombo. The Trade Commissioner for British India answers enquiries in London.

CHILE

Area and Population.—The Republic of Chile, with a total area of nearly 290,000 square miles, and a population of just over 4 millions, shares with Argentina the great advantage of being situated mainly in the temperate zone of South America. With only one-third of the territory of its eastern neighbour, it has over a third as many people. Two-thirds of Chile is, moreover, but thinly settled, so that in the remaining third there is found a compact group of some 2½ million people. Within this area are situated Santiago, the capital (population 500,000), Valparaiso, the leading seaport (population 180,000), Concepcion, with its out-port Talcahuano, the second seaport (64,000 and 22,000 respectively), and several considerable towns with populations from 20,000 to 50,000. Antofagasta, with 51,000 inhabitants, is the only considerable town outside this well-peopled zone. While, moreover, the total volume of the foreign trade, averaging £70 millions, is less than that of Argentina and of Brazil, the trade *per capita*—£17½—is very considerably greater than in the latter country, and is expanding. In this connection it may be observed that the Chilean population, like the Argentine, is mainly of European descent, without the strong Indian and negro elements found in Brazil.

Position and Climate.—Chile is a long narrow strip of territory, averaging 100 miles in width, confined between the Andes Mountains and the Pacific Ocean. It stretches from well within the Tropics (lat. 19° S.), to a point well within the cool temperate zone (lat. 56° S.). Some conception of its varying climates and resources is gained if we imagine a political unit embracing a strip of Africa and Europe from Cape Verde to the Western Highlands of Scotland: for Chile includes a desert zone, the Atacama Desert, corresponding to the Sahara, a transition zone with light winter rains, corresponding to Algeria, a central zone

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still with a summer drought but with more plentiful winter rains, corresponding to Portugal, an austral zone, with rain at all seasons, corresponding to France and England, and the Magellan zone, with a very wet, bleak, stormy climate, corresponding to the Highlands of Scotland.

The most favoured zone, and consequently the best developed and peopled, is that termed Central, with characteristics best described as Mediterranean. It may also be compared with the wealthy California valley of the United States, and it should be noted that the two regions are complementary, since they lie on opposite sides of the equator and their harvests occur in opposite seasons.

Physical Conditions. — The configuration of Chile is relatively simple. The steep slopes of the Andes run down to a great longitudinal valley, separated from the sea-board by a range of hills. Short, swift rivers flow from the snow-capped mountains, cutting gaps through the coastal range. These rivers become more numerous towards the south where the rainfall is greater, and so the mountains are very much eroded. The level of the whole of the southern region has, however, been lowered to such an extent that the sea has encroached upon the valleys. The coastal range here appears as a series of hilly islands, separated from the shore by a sound which represents the longitudinal valley farther north. This sound stretches with but one break (the Taytao Peninsula) from Puerto Montt to the Strait of Magellan, offering a sheltered sea-way 1,000 miles long. The side valleys cut back into the Andes have also been flooded, and form irregular inlets like the sea-lochs of Scotland. To the north of this "half drowned" region, the coast-line of Chile is singularly straight, and unbroken by any inlet. The absence of natural harbours, such as those of San Francisco and Rio, is a great drawback, for all goods have to be lightered.

In the northern desert region there is no vegetation except along the river sides. Farther south the Andean slopes become forested, while thorny algarrobo and small-leaved evergreen trees and shrubs appear on the lowlands. Farther south still, when the region of summer drought is passed, temperate forests and meadowland predominate, the trees including oak, cypress and Chile pine, besides immense tracts of evergreen beech.

Human and Economic Conditions. — In the Atacama Desert zone, the *pampa salitrera*, lie the most easily exploited of all Chile's natural resources: the great nitrate beds. These have formed the basis of national prosperity, for the products find an immediate market in Europe,

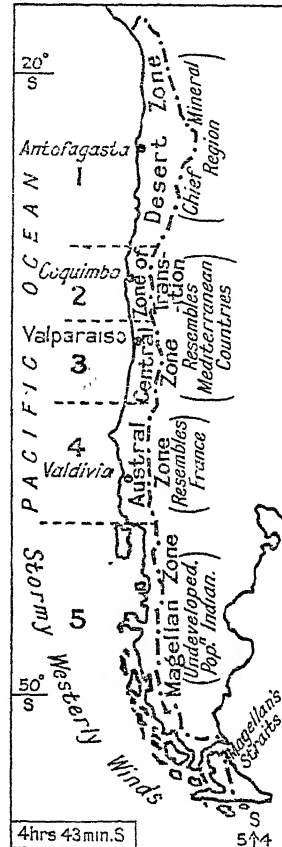


FIG. *28.—CHILE: NATURAL DIVISIONS.

and especially in Great Britain, thus enabling Chile to command in return the manufactured goods of the Old World, and providing means for the steady development of those agricultural resources on which she must rely when the nitrates are exhausted. The competition of atmospheric nitrogen and by-product ammonium sulphate have been severely felt, but the situation has been met by "rationalization" of the industry, and by agreements as to prices and output with the producers of synthetic nitrogen. The output averages $2\frac{1}{2}$ million tons, of which about 90 per cent. is exported.

The nitrate industry has caused a number of considerable towns to spring up in the desert zone. They include Arica (population 5,000), Iquique and Antofagasta. All are seaports, and the first and last named are outlets for land-locked Bolivia, with which they are connected by rail. Where the mountain streams provide water for irrigation there is a limited cultivation of vegetables and fodder for local use, but in the main this region must depend upon the south for all the necessities of life. At the settlements on the nitrate beds themselves, and at the refineries, it is necessary to lay on water from the distant mountains. Short lengths of railway running inland bring the nitrate crystals to the ships, and carry back food, clothing, fuel, building materials and so forth. The region is also reached by the great south to north Government-owned railroad, which runs along the Central Valley, and offers an alternative route to that by coast-wise vessels, which made Chile so vulnerable in case of war.

The nitrates and the iodine obtained as a by-product from the *salitre* by no means exhaust the possibilities of the arid region. Irrigation is capable of considerable extension, and the conditions are eminently suited to *sugar* cane and *cotton* crops, such as are grown under very similar conditions in neighbouring Peru. The Government is financing irrigation projects.

In the Transition Zone farther south, where capital and labour are not diverted to the more profitable mining industries, agriculture, mainly with irrigation, has already taken on great importance. *Wheat*, *barley*, *vines*, *figs*, *alfalfa*, are among the chief crops, and during the winter and spring rains there is pasturage for stock which can be taken to the Andean meadows in summer. The port of this region is Coquimbo, which stands close to the chief town of La Serena (16,000 inhabitants).

It is, however, in the Central Zone that agriculture shows the greatest development. Here, too, the irrigated lands are the most valuable,¹ and are being steadily extended, but irrigation is not absolutely necessary for cultivation, the rainfall being sufficient in good years for wheat, barley, alfalfa, vines, olives, apricots, peaches, beans, peas, lentils; in fact, all the valuable food, fruit, and fodder crops associated in Europe with the Mediterranean countries. *Beans* (frigoles) cover a large acreage, for they are a Chilean national dish, and are sold also in other countries of South America. **Wheat**, however, occupies the greatest area, nearly ten times that of any other single crop. The principal wheat districts are found in the south of the Central Zone, and in the north of the Austral Zone, where irrigation is not practised.

¹ Between 5 and 6 per cent. of the total cultivated land in Chile is irrigated, and with Government assistance the area is being steadily increased.

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Of equal importance to wheat growing is the culture of the **vine**. The wines of Chile include not only light claret and white wines similar to those of Italy, but also burgundies and ports which enjoy a high reputation in South America. The chief wine districts are all found in the Central Zone. The towns in this region either stand in the central valley, e.g., Santiago, Talca (42,000 inhabitants), Chillan (40,000 inhabitants), Curicó (24,000), or on the coast, e.g. Valparaiso, with *Viña del Mar*, the fashionable watering place a few miles away (population 35,000), and the group, Concepcion, Coronel, Talcahuano, farther south. *Cattle*, imported from the Argentine, are fattened on the hay and fodder crops.

In the Austral Zone, where there is no summer drought, the corn crops,

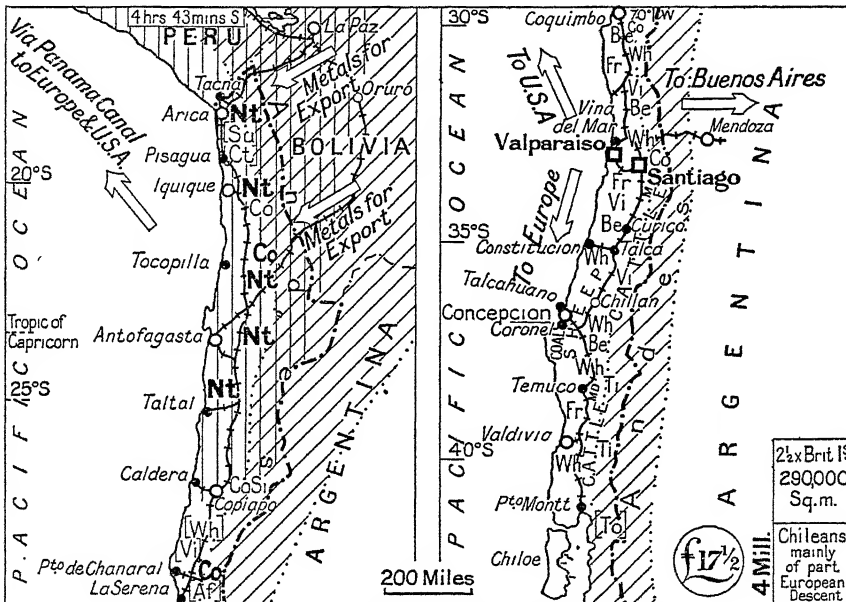


FIG. 29.—CHILE: AGRICULTURE AND MINERALS.

vegetables and fruits of France can be grown, *apples* and *potatoes* being especially notable, and *wheat* doing excellently. There is also abundant pasture for *cattle* (including milch cows) and sheep. *Lumbering*, too, takes on considerable importance, although the forests contain much worthless timber. Only the northern section is well developed at present, the chief towns being Temuco (34,000 inhabitants), in the valley, Valdivia, the chief seaport (28,000 inhabitants), twelve miles from the coast (goods lightered from Corral), and Puerto Montt, the southern terminus of the great north to south railroad, at the head of the sound which replaces the central valley at this point. At Puerto Montt a freezing and packing establishment has been built.

The southern part of the Austral Zone, and the Magallanes Territory, with their great **timber** resources and *fisheries*, are for want of capital and labour at present but little exploited, although there is a scattered popula-

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tion engaged in cattle-rearing and lumbering. In the extreme south, however, the Chilean boundary runs down to the Atlantic coast on either side of Magellan's Strait, so that part of the level land on the eastern side of the mountains is included within it. These plains are clothed with pasture, which, owing to the cool climate, is admirably suited to **sheep**, and here the flocks number 2 millions. The port of this region from which the *wool* and meat are shipped is Punta Arenas on the Strait.

In addition to nitrates, Chile has very important copper mines scattered through the Andes, from which some 180,000 tons of **copper** is annually produced. Much of the mining is of a very primitive character, the ores being carried up from the mines in baskets on men's backs, and transported on pack animals. There is, however, an up-to-date mine and smelting works (erected with United States capital) at Chuquicamata, served by the Antofagasta railway, and there are smelting works near Santiago. Copiapo, in the longitudinal valley, in the extreme south of the desert zone, depends for its prosperity upon the neighbourhood of copper and silver mines, the ores being exported from Caldera, with which it is connected by rail. An American (U.S.A.) Company is also developing the Potrerillos Copper Mine on a large scale. Electrical and smelting plant has been erected at Chañaral, a small port to the north of La Serena, connected by rail with this Andean mine. Calcium *borate* is produced in the *pampa salitrea*.

The third mineral of importance is **coal**, the chief fields being near the coast to the south of Concepcion, behind the coaling-port of Coronel. The output is fairly steady at $1\frac{1}{2}$ million tons. There is also a small field by Magellan's Strait.

The manufactures of Chile are of minor importance. They include flour-mills, tanneries, saw-mills, biscuit and chocolate factories, distilleries, railway workshops, and boot and shoe factories.

Trade Relations.—The Chilean nitrates, with iodine, borax and copper, form the staple exports, accounting for seven-eighths of the total. The agricultural products are in the main consumed locally, but there is a surplus of excellent brewing barley, wheat, hides, wool and mutton for export to Europe, while Chilean wines and beans find a market in South America. Before the War Great Britain was the chief purchaser of Chilean goods, followed by Germany, the United States, France, Belgium and Holland. The war years gave the United States the opportunity to step into the first place, not only as regards exports from Chile, especially copper, but also as regards imports into that country. The two chief classes of these—textile and iron and steel goods, including machinery—formerly came in greatest value from Great Britain, the other manufacturing countries following in the same order as in the case of Chilean exports. The British export of textiles was fairly maintained, increased prices making up for decreased quantities, but such items as iron and steel goods, hardware, machinery, ships and coal, necessarily almost disappeared from the list.

The post-war slump in nitrates reduced the export trade of 1919–20 by several millions sterling, but prosperity was restored side by side with the restoration of European agriculture.

As regards the other South American Republics, Chile does the greatest trade with her neighbours, Argentina and Peru: the former sends cattle, yerba maté, and boots and shoes across the Andes, the latter supplies sugar and petroleum. The exports from Chile to both countries are less than the

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imports, for Peru has local guano; "high farming" as it is practised in Europe, involving the use of fertilizing nitrates, is almost unknown in countries that are agriculturally "new," like Argentina.

Although much of the trade between Chile, Great Britain and Europe has been restored, the opening of the Panama Canal in 1915 brought the United States nearer than the Old World countries to the north and central zones of Chile, whereas formerly the opposite was the case, and hence American lead will be maintained.

More than half the total railway mileage belongs to the State, and is of 5 ft. 6 in. gauge; the privately-owned lines are of varying gauge.

General Information.—The language spoken in Chile is Spanish, and the people are Roman Catholics. Education has only very recently been made compulsory and quite one-third of the population is illiterate. The official monetary unit is the (uncoined) gold *peso*, of the value of 1s. 6d. Currency note issue is controlled by a Central Bank, and the exchange rate is steady. The metric system is officially adopted, although the old Spanish weights and measures are also in use. Greenwich time has only recently been adopted. The Anglo-South American Bank and the Bank of London and South America have branches in the principal cities. Mails reach Valparaíso in 19–25 days. There is a British Consul-General at Valparaíso, Consuls at Coquimbo, Antofagasta, Caldera, Coronel and Iquique, and Vice-Consuls at many other towns. A Commercial Secretary is attached to the British Legation. Chile is a member of the League of Nations.

CHINA

Area and Population.—The Chinese Republic includes the eighteen provinces of China Proper and the three provinces comprised in Manchuria, together with the new dominion of Sinkiang (Chinese Turkestan). Mongolia and Tibet have been granted autonomy under Chinese suzerainty. The eighteen provinces have an area of $1\frac{1}{2}$ million square miles. Manchuria has an area of 363,700 square miles, that is to say, altogether—apart from the outlying territories—China is rather more than half the size of Canada. Sinkiang, Mongolia and Tibet cover an area of $2\frac{1}{4}$ million square miles, bringing up the total of what was formerly the Chinese Empire, in round numbers, to 4 million square miles.

The estimates of population made by different authorities vary between very wide limits. Probably there are about 410 million persons in China Proper, 22 millions in Manchuria, and about 2 millions in each of the three outlying territories, but this may be an understatement. The average imports for 1913–17 were £85 millions, the exports £71 millions, giving a total foreign trade of £156 millions, i.e. only 9s. 6d. per head of population, or if the people outside China Proper and Manchuria are excluded, 9s. 7d. per head. This is a very small figure, considering the vast agricultural and mineral wealth of the country and its huge labour supply, taking into account also the fact that the Chinese are a civilized and cultured people, and that the middle and upper classes are accustomed to lives of refinement and luxury. Japan, with about one-sixth of the population of China, has a far greater volume of trade. The rapid spread of Western

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ideas, the settlement of internal disorders, and the completion of the existing big programme of railway construction must eventually be followed by a very rapid economic expansion, of which, however, the Japanese will reap the chief advantage. Apart from their favourable geographical position, and their knowledge of the Chinese market, the Japanese are obtaining a controlling interest in the country by means of Government loans, capital investments, the establishment of credit banks and so on.

The figure of over £400 millions for the total trade in 1919 suggested great expansion, but in addition to the rise in prices, the enormous appreciation of the Chinese silver unit of currency (the tael) contributed to this total. In spite of civil war, famine, the collapse of the exchange, and world-wide trade depression, the figure for 1920 still showed an advance of about 10 per cent. to a total of £442 millions, but the increase was in imports, exports gravely decreasing. The average for 1921-22 was £270 millions, and this was slightly exceeded in the following years, while the figure for 1927 was £272 millions, of which 52 per cent. represented imports. Even at the lower population estimate, this is only about 12s. a head, but actually only the fraction of the population tapped by the treaty ports is at all concerned in external trade.

The population of the cities, like that of the country at large, is a matter of estimate only. Among those of the first rank are the following: Peking, until recently the capital, with $1\frac{1}{2}$ million inhabitants, and Tientsin, its port, with over $\frac{3}{4}$ million, the two commanding and serving the Northern Plains and Inner Mongolia; Nanking, the new Nationalist capital (360,000); Shanghai, the leading entrepôt (pop. $1\frac{1}{2}$ millions); Hankow (including Wuchang and Hanyang), with $1\frac{1}{2}$ million people; and Chung-king, with over $\frac{1}{2}$ million, all four associated with the Yangtze river, the great trunk waterway of Central China; Canton, the metropolis of the south, behind British Hong-Kong, with over $\frac{1}{2}$ million inhabitants; Foo-chow, the sea port of the rich coast between Shanghai and Hong-Kong; Tsing-tao, the outlet of the well-developed Shantung peninsula; Dairen, Mukden and Harbin, the three nodal points in the prosperous province of Manchuria. From the commercial standpoint Shanghai and Hong Kong (essentially a port of China) must first engage attention, while Dairen, Tientsin and Canton stand in the second rank, and Harbin, Tsingtao (otherwise called Kiao-chow) and Hankow form a third group of rather less importance: these are the eight ports handling the bulk of the external trade of China, so far as it is in European or Japanese hands. But the internal trade (much of it moving by sea) is enormous. The number of foreign residents in China is over 300,000, of whom nearly $\frac{2}{3}$ are Japanese. The Russian colony (68,000) is the next largest, followed by the British (11,000), the Americans (7,000), the Germans and the French. The number of American business houses is increasing, and Americans are taking a decided part in the social, educational and political, as well as the commercial progress of China. Education on western lines is making rapid strides, and a large number of Chinese students attend the Universities of the United States, returning to take up posts in the new Chinese Universities. A phonetic script has been under discussion to replace the ancient ideographic writing.

Peking and Canton are as far apart as New York and Cuba or Oslo and Rome—some 1,200 miles—while Shanghai is roughly half-way between them, a fact to be borne in mind when agencies are under consideration.

China.

Position and Climate.—If Manchuria be included, China stretches from 53° N.—the latitude of Nottingham in England, and of Edmonton in Saskatchewan—to 18° N., i.e. to a point several degrees within the tropics. The climate is, however, more uniform in summer, at least, than might be expected, owing to the dominance of the whole country by the mon-

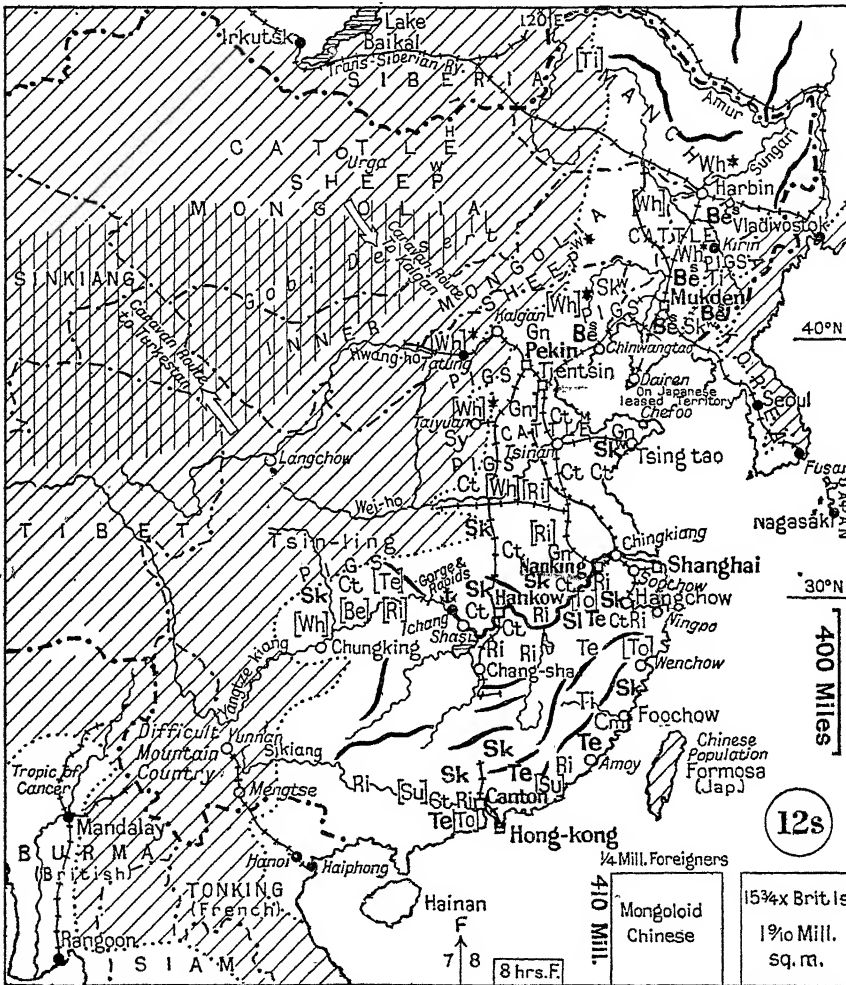


FIG. 30.—CHINA: AGRICULTURE.

soon. The south-eastern monsoon blows in summer from the sea and brings abundant rains. The region that benefits by these rains is limited inland by the edge of the central Asian plateau, and consequently the elevated interior, including Tibet and Mongolia, is very dry, as are also the remote parts of the western provinces of Kan-su and Szechwan. The rainfall diminishes also from the tropical downpour of the south to the light summer

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rains of Manchuria, where the precipitation is comparable to that in the prairie provinces of North America. The summers are exceedingly hot as far north as Peking (latitude 40°), while beyond that latitude they are more moderate. The winter is particularly cold in Manchuria and North China, owing to the strong north-westerly land wind from Siberia. In Central China a short winter, far from severe, is the rule, while in the southern sub-tropical and tropical region the winter months are warm and pleasant. Both in South and Central China there is some rainfall during the winter months, and this fact, combined with the absence of severe weather, makes agriculture possible all the year round. The north is a region of summer and autumn cropping only, but the fact that throughout China the season of greatest heat is also the season of greatest rainfall makes the country very highly productive. As in all monsoon countries, the rain may fail, and this occurs especially in the North, with famine, such as devastated five provinces in 1921, as a consequence.

General Physical Conditions.—China is on the whole a mountainous country, especially in the west and south. Its most important topographical feature is the series of great rivers which cross it from west to east, and thus open highways between the coast and the interior. The fertile valleys of these rivers and their tributaries are the chief centres of dense population, and as they approach the sea these valleys open out into wide plains.

In the north of China Proper, the Gulf of Chilhi penetrates deeply into the land, flooding the low ground behind the Shantung and Liaotung peninsulas, so that here the plain is narrow, and the traffic lines converge. The principal river is the Pei-ho, running by Peking to the Gulf. Still farther north, the Manchurian Plain opens out from the Gulf. This Plain runs from north-east to south-west, and is shut off from the ocean by a series of mountain ranges. The southern part drains to the Gulf by the Liao-ho, and it is this area that has been colonized and settled most closely by the Chinese. The northern part drains to the forested Amur basin, by the Sungari, a tributary of the Amur. In this direction the population is much more scanty. The Manchurian Plain forms a natural corridor between Eastern Siberia and China.

The Chilhi Gulf receives, in addition to the Liao-ho and Pei-ho, a third river far greater than either. This is the Hwang-ho, which brings down such an enormous load of silt (swept from the loose "loess" soil of its upper basin) that it has gradually raised its bed above the level of the plain (here much broader) and has to be confined between dykes. In time of high-water (summer) its level is 15–20 ft. above the countryside, and consequently there have been repeated disastrous floods, involving great loss of life and destruction of crops. Previous to 1854, the river flowed south-eastwards across the plain, and not north-eastwards as at present. From the inner margin of the plain, a section of the Hwang-ho valley, prolonged by the valley of its tributary Wei-ho, affords a very important east to west routeway into the interior of Asia. The lower river is naturally not suited to navigation, nor is any great city located on its shifting banks.

To the south of the Hwang-ho flows the Yangtze-kiang, which, since it drains a much wetter region than the former river, is joined by a series of great navigable tributaries, penetrating the country in all directions. There are a number of large lakes in the Yangtze basin, e.g. the Tung-ting

China.

and Poyang, which fulfil the useful function of receiving the surplus river waters in summer, and thus prevent excessive flooding. The consequence is that a series of great cities have arisen on the banks of the middle and lower Yangtze and of its chief tributaries. The Tsin-ling Mountains separate the higher reaches of the Hwang-ho and Yangtze-kiang systems, but lower down they flow over the same great plain, so that the establishment of communications between North and Central China has never been difficult. The ancient Imperial Grand Canal and the modern railways bear witness to this.

South China has, however, always been more isolated, and this has led to differences of language, custom, and outlook which are reflected in the political conflicts between north and south. The chief southern river is the Si-kiang, which, like those farther north, opens a way westwards into the heart of the country. It is, however, separated from the Yangtze-kiang by a belt of mountainous country which runs right down to the sea. The general trend of the mountain chains is parallel to the coast, which here runs from north-east to south-west. Between the outermost chain and the Formosa Strait lies the fertile, densely peopled, yet hilly province of Fu-kien, remarkable for its very deeply indented shore line.

If the Si-kiang is followed inland to western Yun-nan, another series of mountain chains is encountered. They are very lofty, and run from north to south, separating China from Burma and India, and forming a most formidable barrier to intercommunication.

Except upon the higher mountain chains of Manchuria and of the south and west, China has been almost denuded of the natural forest growth which must once have covered it almost entirely. The characteristic trees of the north and of the higher elevations are the fir, larch, pine, oak, elm, poplar and willow of temperate Europe. In the valleys of Central China there are more evergreens, such as magnolias and camellias, while in the tropical south there are palm trees, and the exceedingly valuable bamboos. The chain of mountains behind Fukien is drained by a number of rivers which unite to form the Min-kiang. *Timber* is floated down to Foochow, at the mouth of the river and exported thence, but the supply must soon be exhausted unless scientific afforestation is practised. The Manchurian timber comes down the Yalu River to Antung.

The somewhat arid north-west of China has naturally a steppe-like vegetation, with few trees, and the Manchurian Plain has likewise always been only lightly timbered, in this respect again resembling the American prairie.

Human and Economic Conditions.—China is essentially an agricultural country, and the bulk of the population are farmers, owning a tiny freehold which is handed down from father to son. The very small acreage of the farm both necessitates and makes possible intensive cultivation. (It should be noted, however, that it precludes the use of large machinery, and the demand is rather for hand implements.) The rainfall is supplemented by irrigation, there is very thorough manuring, and a strict rotation of crops is followed, so that in the north two crops, and in the south three, are reaped during the year from one field. Except on land incapable of tillage there is little pasturage for stock, and only the necessary draught animals are kept—buffaloes, oxen and donkeys—these being stall-fed. Apart from these, the most numerous animals are *pigs* and *poultry*, which feed on the waste from household and farm, and

China.

supply what little meat enters into the Chinese diet. Recently the trade in pigs' *bristles* (notably from Szechwan), and in dried and liquid *eggs* and *albumen* has reached important dimensions. The scarcity of meat leads to a large consumption of fish, which are bred and fished in ponds and rivers as well as taken from the sea.

Rice is the staple cereal crop of China south of the Hwang-ho, and the provinces of the lower Yangtze, with large areas capable of irrigation, grow sufficient to provide a surplus for export to Peking and the north generally. But the country as a whole does not always supply its wants, and there is a varying import of rice—mainly from Indo-China—which in 1921 was valued at £8 millions and in 1927 at £15 millions. On poorer lands *millet* takes the place of rice, and of this widely-grown crop there is a surplus valued at £4 millions, which goes through Antung to Korea. In the north of China Proper, and in Manchuria **wheat** is the leading cereal and appears as a winter crop farther south. The Chinese are rapidly colonizing not only the Manchurian Plain, but the somewhat similar region of Inner Mongolia. The low rainfall, hot summer, and fine deep soil give these regions conditions somewhat resembling those of Canada, so that China may be looked upon as a potential source of wheat for export, although at present most of the grain is consumed locally. Cattle- and sheep-breeding will also greatly extend in these areas. **Maize** is a subsidiary cereal in the plains round Peking, and in South Manchuria; but the needs of the dense population normally preclude any surplus of bread-stuffs. In 1919 and 1920 for the first time there was a noteworthy cereal export, including some $\frac{1}{2}$ million tons of wheat, besides wheat flour, worth £14 millions, but in 1927 the export was negligible.

The only food material that China sends abroad in important quantities is the **soya-bean** and its products, and this trade is only of recent, yet extraordinarily rapid, growth, reaching a value of £30 millions in 1919, a figure that has since been maintained in spite of a lower price-level. The bean is widely grown all over China, but it is in the north, and especially in Manchuria, that there is the greatest production and the greatest surplus. It is used locally to prepare the universal Chinese sauce "soy," and also as a fertilizer and to fatten pigs. At first the beans were exported in their natural state, but it became increasingly the practice to express the oil in which they are so rich and export it separately, the residue forming bean-cake, also exported, which has a very high nutritive value as a cattle-food, and is also largely used in Japan for manure. The chief centres of the bean-pressing and exporting industry are Newchang, Dairen and Antung, the outlets of Manchuria, but with the extension of bean cultivation in Northern Manchuria, the more accessible Russian part of Vladivostok has become a strong competitor. Owing to the heavier freight charges on bean-oil, it is likely that the proportion of beans shipped as such will once more increase, and the oil-expressing industry diminish.

The **ground-nut**, which, like the bean, has in recent years been in great demand in Europe for the manufacture of margarine, is another crop widely grown in China. The north is especially prolific, Shantung being the most productive area in this respect, with the result that Tsing-tao, the port at the terminus of the Shantung railway, handles half the export trade in nuts and oil, the value of which is over £3 millions.

China.

Other *oil-seeds* include sesamum, rape, melon and linseed, making together an export trade of £1-2 millions.

The historic export of China is, of course, **tea**, and although the trade has greatly diminished owing to the competition of Indian, Ceylon and East Indian teas, a recovery is now probable since a Government Bureau has been established to improve the methods of growing, preparation and packing of the leaf, and a part of the export duty has been removed. The best tea grows in South-central and Southern China, particularly on the hill slopes of the provinces to the south of the Yangtze and in the Si-kiang valley. The mild winters, and the absence of any marked season of drought, are essential climate requirements of the shrub, and in addition there must be a fertile, well-drained soil and abundance of hand-labour. Female labour is especially important in this industry. Foochow, the port of the hilly, maritime province of Fukien, has long been noted for its tea-trade. The export value is from £3-5 millions.

As far as exports go, it is, however, as a **silk** producer that China holds a really important place in the world's markets. It is responsible for a quarter of the world's supply of 60 million lb., ranking second only to Japan. The climate of the Yangtze and Si-kiang basins is suited to the mulberry tree, and silk-worm rearing is a household industry throughout these densely peopled valleys, the work of the women and children being specially valuable. In the north, where the severe winters do not suit the mulberry, the silk-worms are fed on oak-leaves, the so-called "yellow" and "wild" silks being most abundantly produced in Shantung and Manchuria. The wild silk is found to be the best for aeroplane wings, and the recent discovery of an effective method of bleaching yellow silk has allowed it to be dyed and printed in delicate shades, so that its value is greatly enhanced. The woven material is known as Shantung, and is produced chiefly at Chefoo and Tsingtao, the ports of the Shantung peninsula. The introduction of steam filatures for unwinding the cocoons has greatly improved the quality of Chinese silk. These are most numerous in the lower Yangtze region—at Shanghai, Hangchow, Soochow and Chinkiang—at Hankow on the middle Yangtze, round about Canton, and at Chefoo. The lower Yangtze cities are also the chief source of silk piece goods, the chief market for these being Shanghai. In 1927 the export value of raw silk and silk products was £24 millions.

Of greater domestic importance than silk is the **cotton** crop, since both for under and outer garments, as well as for household purposes, cotton materials are in almost universal use among the vast population. The home supply is, however, insufficient, for in 1917 cotton piece goods were imported to the value of £20 millions, besides Indian and Japanese yarn to the values of £6½ and £6 millions respectively. These figures were approximately maintained in 1927. The proportion of Chinese yarn in the factories (as opposed to the home hand-looms) is increasing, and as there are numbers of new mills being built, these will probably absorb the present export of raw cotton (£4 millions), which goes mainly to Japan. Since it is a summer crop only, cotton can be grown as far north as Peking, and is very important in the Hwang-ho basin. As in the case of silk and rice, however, it is the Yangtze-kiang valley that has the greatest production, and the largest number of cotton mills are found at Shanghai, while there are others at Wuchang (Hankow) and Canton. Japanese mills have been

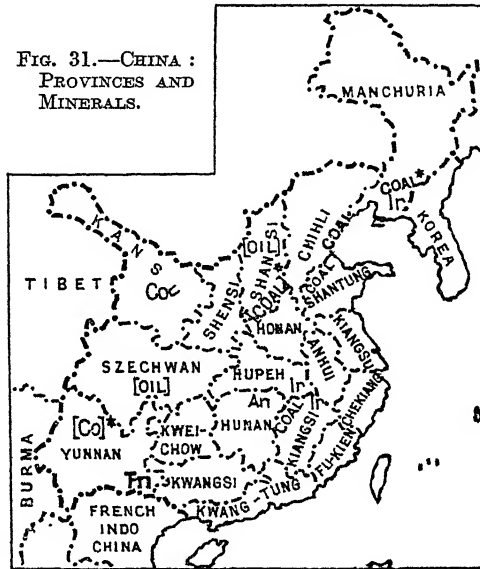
China.

even roads, so that in many parts traffic is by wheelbarrows, by small and cumbersome carts, or, where there is water deep enough, by junks, sampans and other craft. In the Yangtze and Si-kiang basins, the volume of native water traffic is enormous. The **coal** resources are very great indeed, and the mines are well distributed over the country, but this is a mineral which cannot bear excessive transport charges. The most famous field is the anthracite coal-field of Shansi, but this is very inadequately worked by Chinese companies. The most progressive workings are still the Fushun collieries in South Manchuria, near Mukden, owned by the South Manchurian (Japanese) Railway Company, and the Kaiping collieries, under the Kailan Mining Administration, which is Sino-British. Both these mines have good railway facilities, and easy access to the ports of Dairen and Chinwangtao respectively, and both carry on a profitable brick and tile industry in conjunction with mining. The Japanese concern has also a large coking plant, and a gas plant yielding as a by-product sulphate of ammonia, which goes to Japan. The mines of Shantung (formerly German-owned) are also favourably placed with regard to the railway, and had a considerable output, while in Hu-peh Province, to the south of the Yangtze, a mine was worked to supply the Hankow industrial concerns. All but the Fushun and Kaiping concerns were closed down by 1928 owing to the Civil War, and the output, which had reached 25 million tons by 1925, fell to about 12 million, of which 7 million tons came from the Manchurian mine.

There is an export of coal (including bunkering coal) from these two mines, balanced by an import of Japanese coal into Central and South China. There is very little domestic use of coal, charcoal being burned. The Chinese ignorance of machinery is a great hindrance to industrial enterprises; machines are thrown out of use owing to ignorant handling, to inability to effect small repairs, or to the lack of spare parts, and the consequent loss and disappointment act as a deterrent to other purchasers.

In **iron** ore China is likewise fairly rich, the greatest output being from the Tayeh iron mines in Hu-peh, connected by light railway with the Yangtze below Hankow. Part of the normal output of 700,000 tons goes to the Hankow ironworks and part to Japan. There are also high-grade ores being worked at Penhsihui in Southern Manchuria, where the Japanese have established ironworks in addition to those of Anshan. Owing to the disturbed state of China Proper, and the destruction it has involved, the chief output is at present from Manchuria.

FIG. 31.—CHINA :
PROVINCES AND
MINERALS.



The principal *copper* mines are near Langchow, in the remote western province of Kentsu. Here Government smelting works under European supervision were established, but the extension of copper production in more accessible regions (e.g. the Congo) has combined with the peculiar difficulties of development in China to make the output negligible. The mountainous province of Yunnan is also rich in copper, which is, however, but little worked. The chief mineral output in this province is of **tin**, found in the Mengtze district, through which the French railway of Tonking (Indo-China) runs up to Yun-nan-fu. This ore is taken to the coast by rail and then to Hong-Kong for smelting. The yield is about 10,000 tons of tin annually. China is the chief source of the world's supply of **antimony**, the principal mine being in the province of Hu-nan. There are antimony smelting works at Hankow and at Changsha, on the railway from Hankow which will eventually run to Canton. The output of antimony regulas is 15,000–16,000 tons, and there is a small output of both *lead* and *zinc* from the same region. Wolfram ore, yielding *tungsten* to the value of £180,000, is mined near Kui-kiang on the middle Yangtze. There are undeveloped **oil**-fields in Shansi and Szechwan.

The *manufacturing* enterprises of China are mainly concerned with preparing the agricultural and mineral products for the market. They include flour and rice mills, egg and albumen factories, oil-crushing mills, smelting works, brick, tile and cement works. Apart from these the most important and thoroughly established industry is that of *textiles*, cotton yarn and goods ranking first, silk yarn and goods second as regards output, though not as regards export. The *iron* and *steel* industry is still in its infancy, although the large ironworks of Hankow, and the newer enterprises in Southern Manchuria indicate possibilities of development if capital and organizing ability are forthcoming. The Hankow works formerly employed forty foreign engineers, and 8,000 Chinese labourers, and can turn out pig-iron, steel rails, steel plates and nails, although in quantities insufficient for Chinese requirements. Manchuria is producing about 200,000 tons of pig-iron. Recent years have seen a *shipbuilding* industry established at Shanghai, and at various river ports, motor-boats (with imported engines) are built for use on the numerous waterways. There is a very large *cigarette*-making industry at Shanghai, which is, in fact, the principal manufacturing centre in general.

Among native manufactures the most famous is the *porcelain* industry. The principal kaolin deposits are in the mountainous south-eastern province, Kiang-si (with King-te-chen as centre), Fukien and Kwantung. The two latter provinces are also the most famed for lacquer-ware, objets d'art, fireworks (notably at Kowloon and Canton), matting and palm-leaf fans. Carpets and rugs are chiefly sold in Tientsin, since sheep are bred in the north-west, and Mongolian produce reaches this port via the Paotowchen railway to Kalgan. The straw-plait industry is also a northern one, the long-stemmed wheat growing on the Hwang-ho plain. The market is at Tsinan, and the export (in Japanese hands) from Tsingtao. Grass-cloth is woven and finds a market in Korea.

• **Trade Relations.**—The outstanding feature of Chinese external trade is the dominating position of Japan: this, however, is not so striking as it was ten years ago, under 30 per cent. instead of 40 per cent. of the imports now coming from Japan, while only 22 per cent. instead of 40 per

China.

cent. of the exports go directly thither. To these figures must be added, however, Japan's share in the trade of Hong-Kong. Leaving Hong-Kong aside, the United States has the second place, both in the import and export trade, while Great Britain stands third as supplying imports, but only fifth as a market for Chinese produce, which goes in greater quantities to Russia (chiefly Siberia) and Korea. France very nearly equals Great Britain as a purchaser of Chinese exports, while Germany has a much smaller share, alike of the import and export trade.

Japan is a principal buyer of beans and bean products, of ground-nuts and other oil-seeds, but the United States and France also make large purchases, and both Holland and Germany on a smaller scale. The United States and France, with their large manufactures of natural silk, are the chief purchasers of raw silk, while the United States is the chief customer for wood-oil. On the other hand, China tea goes chiefly to Great Britain and Russia, and certain varieties are esteemed in the Near East, in Turkey, Persia and Egypt, while brick tea goes to Central Asia. Chinese cotton-yarn and minerals, especially iron-ore, go to Japan.

Japan has a position as the chief purveyor of cotton goods to China which cannot be challenged; her share is roughly seven times that of Britain, although the latter has still the principal share in the much smaller (but growing) import of woollens. Here, however, French competition must be looked for. Sugar is supplied from the refineries of Japan, and in smaller quantities from the Dutch Indies and Philippines. Rice from French Indo-China (a large proportion via Hong-Kong) and to a less extent from Burmah. Wheat comes from Canada, Australia or the United States, according to harvest conditions. Three-quarters of the import of petroleum is from the United States, the rest coming from the Dutch Indies; raw tobacco also comes from the States, but in the cigarette import Great Britain competes with that country. In imported iron and steel goods, Great Britain holds an important place, but meets strong competition from Belgium, Japan and the United States, e.g. galvanized sheets come mainly from Japan, tin-plates mainly from the States, although these are important among British products. The demand for machinery is relatively small, and although Great Britain takes the first place in respect of textile machinery, in other branches Japan, the United States and Germany are more important.

The comprehensive railway programme of the Chinese Government has been held up by the civil war, and to a certain extent by the opposition of the more backward and ignorant peasantry of the mountain districts. The trunk-route from Peking via Hankow to Canton is urgently needed, but is only complete to Chuchow, 30 miles south of Chang-sha, and for 140 miles from Canton northwards to Shinchow. A branch line is to be carried up the Hwang-ho and Wei-ho valleys to Langchow, whence caravans start for Central Asia. For this line an American Company obtained a concession. Even more important, however, is the line from Hankow to Sze-chwan, on which construction is held up. Sze-chwan is a densely peopled, fertile province on the upper Yangtze-kiang, growing tea, cotton, rice, wheat, silk, bristles, drugs, wood oil and oil seeds in abundance. Its metropolis is Chung-king, a river-port with over half a million inhabitants, but below this port the navigation of the Yangtze is interrupted and made dangerous by rapids and shallows, especially at the famous Ichang gorge, so that the province is almost isolated. Several foreign companies have

China.

lately put steamers on the river which surmount the obstacles, except during the winter months, when the water is so low that the rocky rapids are impassable. The need for a railway is, however, great, although the mountain barrier which encloses the province makes construction difficult. A third route will be constructed up the Si-kiang valley from Canton to Yunnan-fu, and must eventually be carried over the mountains to link with the Burmese system, which already reaches the frontier. In this way the tremendous detour of over 6,000 miles from India to China, via Singapore, will be avoided.

While trunk-routes to the West are urgently needed, the only actual progress has been as regards reaching Inner Mongolia, already mentioned as an area of recent colonization. Lines run to this region from Peking, via Kalgan, and from the main Manchurian railroad.

The Manchurian railway system, under Japanese control, is already fairly complete. It is linked with the trunk line to Peking, and also with the Trans-Siberian railroad, which runs to Vladivostok via Harbin in northern Manchuria. A branch line from Mukden also joins the Korean railways, and there is thus a quick route via Seoul and Fusan to Japan. Harbin and Mukden are consequently considerable entrepôts for Siberian, North Manchurian and Mongolian produce, including furs and skins, wool and hides, besides farm produce. The Grand Canal was to be dredged and made navigable by an American firm under contract with the Government, but actually, except in Manchuria and in the treaty ports, transport conditions are temporarily in a deplorable state. The mileage of passable (though far from good) roads has, however, increased, and the Nationalist road-making policy holds promise for the trade in motor-vehicles.

Of the ports of China, two only have first-class natural harbours. They are Dalny (Dairen), on the territory leased to Japan, and Tsingtao, on the territory formerly leased to Germany. Both have deep water, allowing the largest ocean vessels to lie at the wharf, and both have up-to-date facilities for dealing with freight. Of the other ports, Tientsin is forty miles up a shallow, winding and swift river, the Pei-ho, which is, moreover, closed by ice during December, January and February. A bar at the river mouth (at Taku) has a maximum depth of only 14 ft. Consequently goods for North China must be transhipped at Shanghai or Kôbe (Japan), and sometimes subsequently lightered from the smaller vessels.

Shanghai, on the Whangpoo, has the approach barred by sandbanks, over which the maximum depth is 30 ft., so that the largest ocean vessels cannot approach it, and some mail steamers discharge from lighters at Woosung, 14 miles away. Although this port has the most productive hinterland, to which it is linked by water and rail, it is considered that unless improvements are effected, Tsingtao will prove a serious competitor, and various plans for providing a 40 ft. channel are under consideration.

General Information.—The unit of currency for Customs purposes in China is the Haikwan *tael*, representing a fixed weight (583·3 grains) of silver, and therefore of fluctuating exchange value: but the dollar (2s.), also of fluctuating value, is in wide circulation, and the minting by the Government of silver dollars and subsidiary coins has begun. A gold currency scheme has been formulated, but has not so far been carried into effect. The *picul* (unit of weight) is fixed by treaty as 133½ lb. avoirdupois, and the *ch'ih* (unit of length) as 14⅞ English

Chinese Turkestan.

inches. A picul equals 100 *catties* or 1,600 taels. These equivalents are in common use at the treaty ports, but over the country there is wide variation. The metre of 3 *ch'ih* has been adopted as a measure of length under the name of the standard foot. The last ten years has seen the establishment of five Chinese National Banks—the Bank of China, the National Commercial Bank, the Bank of Territorial Development, the Industrial and Commercial Bank, and the Exchange Bank of China (with Sino-Japanese capital). There are, in addition, the large foreign banks at the treaty ports, of which three are British: the Chartered Bank of India, Australia and China (head office in London); the Hong-Kong and Shanghai Banking Corporation (head office in Hong-Kong); the Mercantile Bank of India, Ltd. (head office in London). The mails, carried by P. & O. steamers, take 32–33 days to reach Shanghai; the Messageries Maritimes, from Marseilles, also carry mails, as do three Japanese steamship lines sailing between China and both Europe and America. From Vancouver by C.P.R. steamer the time taken is 28 days, and from San Francisco, by the American-Pacific Mail Steamship Co., 30 days. The time from London to Shanghai by the Trans-Siberian and Manchurian railroads is only 16–20 days.

The three official religions of China are Confucianism, Taoism and Buddhism, but there are over 5 million Mohammedans, and 2½ million Christians.

A powerful wireless station has been erected at Urga to maintain communication with Urumtschi and Kashgar in Sin-Kiang, formerly Chinese Turkestan. A high power station is to be erected at Shanghai. The internal telegraph system of China is fairly adequate.

British Consul-Generals reside at Shanghai, Canton, Hankow, Tientsin, Mukden, Nanking, and Yunnan-fu. There are also Consular representatives in all the open ports. A British Commercial Counsellor is stationed at Shanghai, and a Commercial Secretary is attached to the Legation at Nanking. China is a member of the League of Nations.

CHINA, FRENCH

See **French China**, p. 187.

CHINA, FRENCH-INDO

See **French Indo-China**, p. 190.

CHINA, PORTUGUESE

See **Macao**, p. 295.

CHINESE TURKESTAN

See **Sin-Kiang**, p. 399.

CHŌSEN (KOREA)

Area and Population.—Chōsen is (since 1910) a part of the Japanese Empire, administered by a Governor-General. With an area of about 85,000 square miles (nearly as large as England, Scotland and Wales), it has a population of 19 millions, including a large number of immigrant Chinese and Japanese, about 400 Europeans and 700 Americans. The foreign trade has risen during the last few years from an average of £10

millions to £78 millions in 1928, i.e. £4 per head. The imports are considerably in excess of the exports, as a great number of improvements are being made and new industries started under the direction and with the capital of Japan. Seoul, the capital, has 300,000 inhabitants, while Ping-Yang, an inland "open port," and Fusan, the port for Japan, have each over 100,000.

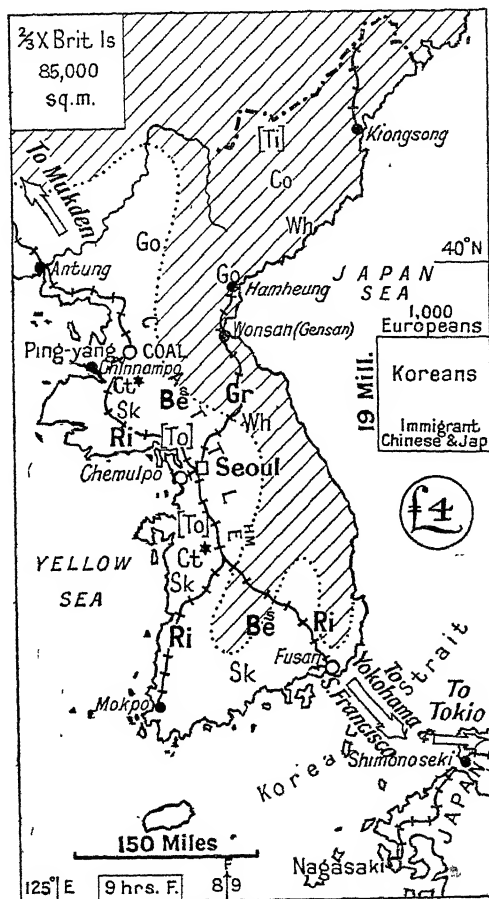


FIG. 32.—CHŌSEN.

Position, Climate and General Physical Conditions.

—Korea is a peninsula thrust out between the Japan and Yellow Seas, and is isolated by mountain ranges from Manchuria and China. Hence the development within it of the Koreans as a separate branch of the Mongolian race. It stretches from 44° N. (latitude of Hakodate) to 34° N. (latitude of Shimonoseki), and has a monsoon climate, with abundant rains during the hot season. Its peninsula shape renders the temperatures decidedly less extreme than on the Great Plain of China in the same latitudes; on the other hand, the climate is not quite so favourable

(moist and mild) as in the neighbouring parts of Japan. The build of the country is simple: a lofty mountain range rises from the east coast, where it overlooks the Sea of Japan, and falls away gradually towards the west and south, where in consequence the bulk of the agricultural land and of the population is to be found.

Centrally placed on the west coastal plain is Seoul, the capital, served

Chōsen (Korea).

by the port of Chemulpo on the Yellow Sea, while in the south the growing town and seaport of Fusan overlooks the island-studded Korea Strait, 120 miles wide.

Human and Economic Conditions.—Chōsen is essentially an agricultural country, growing the great monsoon staples, **cotton**, 500,000 bales, and **rice**. The latter crop averages 75 million bushels. In the cooler, more mountainous east and north, *wheat* and *barley* take the place of rice, and since, owing to the sparser population, there is less pressure on the land than in Japan or China, pasture is available for **cattle**, which are reared in considerable numbers, 1½ millions in 1928.

As in northern China, **beans** are an important crop, supplying vegetable oil, fodder and fertilizer, and *silk* is produced on a large scale from silk-worms fed on the mulberry tree. *Tobacco*, too, is grown in sufficient quantity to supply local needs. Another crop is *ginseng*, a drug much used in China, which is a Government monopoly. There is room for improvement in the methods of farming, and there is plenty of land awaiting development, so that this colony is a valuable asset to overpeopled Japan.

The mountains are rich in minerals, of which **gold** and **iron** ore are already mined, to the value of £¾ million and £¼ million respectively in 1927. **Graphite** is also produced, though it is of inferior quality. Transport facilities are, however, still lacking in the mineral regions, which lie in the uplands. A **coal**-field now being worked is an exception, since it is favourably situated in the north-west, near Ping-Yang, on the main railway route.

This railway, which terminates at Fusan, runs through the populous western belt to the Chinese frontier, and affords through connection with the Manchurian and Siberian systems. Steamers ply between Fusan and Shimonoseki, the terminus of the mainland railway of Japan.

The Koreans are skilled handicraftsmen and hand-loom weavers, but modern industries date only from the Japanese occupation, and include **iron** foundries, silk filatures and textile mills at Chemulpo and near Fusan.

Trade Relations.—The largest trade is done with Japan, which takes the surplus rice crop and the bulk of the raw silk. In 1928 the rice exported was worth £19 millions, the Japanese Government making large purchases to bring down the high price of food. Beans, hides and cattle make up the remainder of the exports of farm produce.

The biggest imported item is cotton goods, £2½ millions, followed by silk goods, nearly £1 million. There is a considerable demand for machinery (£1 million), supplied partly by Japan, partly by the United States, the latter country also sending petroleum. Coal, wrought iron and sugar are other items of importance, all obtained from Japan. Millet and grass cloth come from China.

About two-thirds of the imports come from Japan, although these include goods of foreign origin. Over 90 per cent. of the exports are consigned to Japan.

General Information.—Chōsen has a modern banking system, and a gold currency similar to that of Japan. The Bank of Chōsen (with London offices) issues notes unrestrictedly against a reserve of specie. Under Japanese direction considerable advance is being made in general and technical education on Western lines. There is telegraph connection

with China and Japan. Mails reach Seoul via Mukden in about three weeks. A British Consul-General resides at Seoul.

COCHIN CHINA

See **French Indo-China**, p. 190.

COLOMBIA

Area and Population.—The Republic of Colombia, with an area of nearly half a million square miles (about $3\frac{1}{2}$ times as large as the British Isles), has a population of about $6\frac{1}{2}$ millions, that is to say, about one-eighth that of Britain. About half the country is practically uninhabited, and there are over half a million people living in those eight towns which severally have a population of over 30,000. Women are in a majority. Bogotá, the capital, has about 150,000 inhabitants. The country is rich in natural advantages and resources, but it is also faced by quite extraordinary difficulties in regard to their development. To name but two: the principal highway, the Magdalena River, is navigable for 900 miles, but its mouth is closed by a bar, and at a central point up-stream it is broken by rapids. Again, the great eastern plains, covering thousands of square miles, are isolated by a mountain wall, nowhere less than two miles high, which stretches its unbroken length from frontier to frontier. Hence the total trade in 1918 was only £12 millions, or £2½ a head. This value was reached also in 1913, but in 1919 there was a jump to £25 millions, both imports and exports doubling in value; in 1920 the total was over £30 millions, which fell to £15 millions in the slump year, 1921. A prosperous period has supervened, and the trade in 1927 was £50 millions or £7 a head.

Position and Climate.—Colombia occupies the north-west corner of South America, and thus has two sea-boards, one to the Caribbean Sea, the other to the Pacific Ocean, which are separated by the Isthmus of Panama. Almost the whole of the country lies between the Equator and latitude 10° N. (i.e., in latitudes similar to the East Indies), and hence the temperatures are very uniform. They range from an average of 78°F. (very hot) on the lowlands, to 58°F. (pleasantly warm) in the high valleys and plains that lie at elevations of seven or eight thousand feet up in the mountains. In the west and south, the heavy tropical rains fall at all seasons, especially in the lowlands and lower mountain slopes. In the north, there is a dry season during the months of December–March, when the North-East Trade sweeps over the land as a drying wind. Nowhere, however, save in Goajira, is there any deficiency of moisture, and perennial streams are everywhere abundant.

Physical Conditions.—The structure of Colombia is simple. A Western or Mountain Zone may be distinguished from the Eastern Plains, which are co-terminous with those of the Orinoco in Venezuela and of the Amazon in Brazil. The mountains are, of course, the Andes, which enter the country from the south-west as an enormous rampart, some 200 miles broad, and having culminating peaks whose summits are nearly five miles above sea-level. This mountain mass is known as the Knot of Pasto. At about 100 miles from the frontier the whole stupendous range breaks up

Colombia.

coffee. That is to say, the country has hitherto only been able to send abroad products having a very high value relatively to their bulk. It is the transport difficulty, the lack of a coherent system of roads and railways, that has hitherto checked development. And it is a difficulty emphasized by the fact that the greatest centre of population, the capital city of Bogota (150,000 inhabitants), is perched at an elevation of 8,500 ft. on the innermost of the three Andean Ridges, several hundred miles from the nearest sea-board. This city is the centre of Government, of education, of religious organization, of art and of culture generally; that is to say, it is the principal buying centre of the Republic. Yet to reach Bogota goods must be landed first of all at Port of Colombia for a short rail trip of 17 miles to Barranquilla (49,000 inhabitants), the port of the Magdalena, where they are placed on a river steamer. They go up-stream to La Dorado, when again they must be transferred to the rails, since navigation is broken by the Honda rapids. Above the rapids, there is steamer navigation once more, and then for the third time the goods are put on rail, in this case to make the steep ascent of the mountains. A zigzag route runs from Girardot to Bogota, but unfortunately a break of gauge en route, at Facatativa, involves yet another rehandling of freight. Yet Bogota is favourably situated as compared with many other towns, which can be reached only by pack-mules. Hence the foreign manufacturer doing business with Colombia must make a special study of packing, for the cases must be of small bulk, easy to handle, and yet very strong.

Active improvements of transport facilities are however in progress, for both the Colombian Government and the Colombian people are alive to the needs of the situation. A Company was formed in 1919 to open the Magdalena bar, and both railway and road construction are being pushed forward. A consideration of the existing isolated systems will throw light upon the more important economic enterprises in different parts of the country.

Bogota stands at the edge of a lofty, fertile, mountain-girt plain, and is connected by rail with the neighbouring **salt**-mines, which are an important source of public revenue. In the same district are the famous **emerald** mines, from which practically the whole world's supply is drawn.

The chief **gold**-mining centre is Medellin (79,000 population), which stands on the central Andean ridge: a railway connects it with the Magdalena valley, except for a break of twenty miles up in the mountains. The most important **coffee** plantations are on the slopes of the eastern Andean ridge, where it swings round into Venezuela: the region is, in fact, an extension of that of the neighbouring State, which is also famous for its coffee. The Colombian "coffee towns" are Cucuta and Bucaramanga (each with over 25,000 inhabitants), and from the former a railway runs to the Venezuelan frontier, since the coffee is sent abroad via Venezuela. The output averages 150,000 tons, valued at £18 millions, nearly the whole being exported.

Colombia has its share in the Caribbean **banana** industry, which has grown so rapidly in late years, the banana port (developed by the United Fruit Company) being Santa Marta. A short railway serves the plantations. The export value is £2 millions. Over the northern coast plain generally, and especially in the lower Magdalena valley, valuable crops of *cacao*, *sugar*, *cotton* (30,000 bales) and *tobacco* are successfully grown, and furnish minor

Colombia.

exports which might be greatly increased. Another valuable agricultural region is the Upper Cauca valley, with its centre in Cali (population 28,000). Here, although the heat is not excessive because of the elevation, a high temperature is steadily maintained throughout the year which enables *sugar, rice, coffee, maize*, and similar crops to be grown. A railway runs from this prosperous valley to the growing Pacific seaport of Buenaventura, near the mouth of San Juan. There remains to be mentioned the line joining Cartagena (population 37,000) to the Magdalena. This port has been largely superseded commercially by Barranquilla (population 81,000), and its outport Puerto Colombia.

There are several million head of *cattle* in the country, for they are reared in most of the settled districts, e.g., on the plain round Bogota, but only their hides were sent abroad until quite recently. Now some tens of thousands are shipped annually to Cristobal, the Atlantic port of the Panama Canal, where they are slaughtered for ships' supplies. The great natural pastures of the llanos could furnish beasts for a meat-packing industry, but their development must probably await that of the Venezuelan llanos, of which they are an extension. So, too, the virgin forest of the south-east, with an ideal climate for *cacao, rubber* and *cotton* plantations, will be more readily exploited when transport is improved in the Amazon basin by neighbouring Brazil.

Meanwhile, in the mountain zone, there are very considerable *coal* and *petroleum* deposits, besides *copper, lead, mercury* and *manganese* mines, all awaiting railroad developments. The oil-field in the Magdalena valley has been described as the most promising in the world, and several American and British concerns are actively at work. The output rose spectacularly from $\frac{1}{2}$ million barrels in 1924 to 16 millions in 1927 and 20 millions in 1928. It is piped to Cartagena. The 25 million dollars handed over by the U.S.A. Government on account of the secession of Panama is being applied by the Colombian Government to transport improvements.

Trade Relations.—At present coal is supplied from abroad, as are flour and lard, which might be produced within the country. The chief imports, however, are of manufactured goods of every description, from a needle to a grand piano. Cotton goods, the almost universal clothing material, take the first place, and are supplied by the United States and by Great Britain. The value of the trade with Britain is about £6 millions in each direction annually. That with the United States (a large customer for coffee) was £1 $\frac{3}{4}$ millions imports, and £4 millions exports, in 1915, which (according to U.S.A. returns) has increased to over £10 millions each way since 1920. Germany had a very considerable footing in Colombia previous to 1914, and now takes the third place as a source of supply of manufactures.

General Information.—The monetary unit (established 1907) is the gold *peso*, equal to one-fifth of a pound sterling, and the Government is redeeming the paper currency. Branches of the Anglo-South American Bank and the Bank of London and South America (with London offices) are established at Bogota. The metric system of weights and measures is in official use, but the *libra* (1·102 lb. av.), *arroba* (25 libras) and *quintal* (100 libras) are commonly employed. The language spoken is Spanish, and the national religion is Roman Catholic. Mails reach Santa Marta in 18 days from Manchester (by the fruit boats), but transit from London to

Corsica.

Bogota takes 26–29 days. There is a British Consul at Barranquilla ; Vice-Consuls at Bogota, Cali, Cartagena, Medellin and Santa Marta ; consular representatives at Honda and Buenaventura, both on the less-developed Pacific coast. A Commercial Secretary is attached to the British Legation. Colombia is a member of the League of Nations.

COLUMBIA, BRITISH

See **Canada**, p. 95.

COMORO ISLANDS

See **Mayotte**, p. 305.

CONGO, BELGIAN

See **Belgian Congo**, p. 47.

COOK AND NEIGHBOURING ISLANDS

Area and Population.—The Cook Islands and neighbouring islets are annexed to New Zealand, and are administered by a New Zealand Minister. They cover about 280 square miles, and the population is rather over 13,000. The indigenous (Polynesian) population is slowly decreasing, and any future development must depend upon the immigration of more vigorous peoples from Eastern Asia or elsewhere. At Rarotonga, the chief of the Cook Group, and in the isolated Savage Islands (Niue) to the west, British Residents have been appointed to the courts of the native rulers.

General Conditions.—The islands, which are of coral formation, lie round about the 20th south parallel, 160° W. of Greenwich, and have an excellent climate and a good limestone soil. *Coco-nuts* are the most prominent feature of the vegetation, and the natives grow yams, bread-fruit and taro, besides engaging in fishing. The chief line of development has been in the cultivation of *fruit* (oranges, bananas, tomatoes) for the New Zealand market. The **copra** (£40,000) goes mainly to the United States. The total trade is about £280,000, in which New Zealand has the largest share. There is a wireless station at Rarotonga which is reached by mail in 26–28 days.

COREA

See **Chōsen**, p. 128.

CORSICA

See **France**, p. 179.

COSTA RICA

Area and Population.—The Republic of Costa Rica has an area of 23,000 square miles (nearly half the size of England) and a population of about $\frac{1}{2}$ million (20 to the square mile). The foreign trade before the War had reached nearly £4 millions, or £8 a head, the highest figure for any of the small Central American Republics. In 1918 lack of shipping had reduced the trade to £2½ millions, but a rapid recovery took place to £5½ millions in 1921, and in 1927 it totalled £7 millions. The bulk of the population is of mixed Spanish and Indian descent, but there are many of pure Spanish blood in the cities, and there are some 18,000 negroes from the British West Indies in the banana plantations on the east coast. The largest city is San José, with over 50,000 inhabitants, situated at a considerable elevation (5,000 ft.). The Costa Ricans are on the whole better educated than the other peoples of Central America.¹

Position and General Physical Conditions.—Costa Rica lies in Central America, between Nicaragua and Panama. The average distance between the Pacific and Atlantic (Caribbean) Coasts is only about 60 miles. The Republic lies between 8° and 10° North of the equator, so that the coastal lowlands are uniformly hot and wet, and consequently unhealthy, but a range of mountains runs through the country from end to end, and the chief centres of population are on these cooler and more healthy uplands. Tropical forests clothe the lower slopes of the mountains, merging into temperate forests at higher levels.

Human and Economic Conditions.—A great variety of tropical food-stuffs are grown for local use, but the principal money crop is **coffee**, of which the export value has increased in the last decade from £1 million to over £2 millions. This is grown at elevations of from 1,000 to 5,000 ft. and is of superior quality. The value of the **banana** crop, grown on the plantations along the Caribbean seaboard, sometimes exceeds that of coffee (£1½ million in 1921), but the banana trade was more adversely affected by the War than that in the more easily handled coffee. **Sugar** was first exported in 1914, and in 1920 the value of the export was £272,000, but since the return to normal price level the sugar is again a home supply crop, coffee and bananas supplying nine-tenths of the export trade. There is a small output of good **cacao**. Mining, principally **gold** and **silver**, has increased, the export averaging £200,000. The forests contain very valuable hard-woods, cabinet woods and dyewoods, but the export of **timber** is comparatively small, although steadily increasing in value. There is abundance of water-power, and electricity is widely used, although on a small scale.

Trade Relations.—There is a railway from seaboard to seaboard—Punta Arenas to Limon—which passes through San José. From Limon a coast railway extends to the Panama boundary and will be linked with the system of the neighbouring Republic. Limon is the chief port of trade with the United States and Europe, while Punta Arenas trades with the other Latin Republics. Limon is visited regularly by British and American shipping companies, and these countries take the bulk of the trade of Costa Rica, the United States having captured and retained part of the fairly

¹ For Commercial Map see Guatemala.

Cuba.

considerable pre-war trade of Germany. Much of the United States trade is for reshipment. Cotton goods, construction and railway material, hardware, bags, besides flour, lard, rice and other food-stuffs for the plantation workers, are in largest demand. There is also a market for telephones and electrical goods. By 1920 Germany had regained over 13 per cent. of the total sales of merchandise to Costa Rica, and this figure has now been increased to 15 per cent.

General Information.—The unit of currency is the gold *colon*, of value 22·9*d.*, of which 2·15 equal one American gold dollar, and 10·45 equal the English gold sovereign. There are two Costa Rican banks of issue, the International Bank of Costa Rica, and the Bank of Costa Rica. There is a branch of the Royal Bank of Canada at San José. The metric system of weights and measures is in use. The language spoken is Spanish, and the prevailing religion is Roman Catholic. There is wireless connection with Colon (Panama) and Bluefields (Nicaragua). Mails from Southampton reach San José in 15–20 days. There are British Consuls at San José and Port Limon. Standard time is 6 hours slow on Greenwich.

CRETE

See **Greece**, p. 234.

CROATIA

See **Yugoslavia**, p. 463.

CUBA

Area and Population.—Cuba, formerly a Spanish Colony, is a Republic since 1901, the Government of the United States having certain rights of intervention in Cuban affairs. The area of the island is rather more than 44,000 square miles (about $1\frac{1}{2}$ times the area of Scotland), and the population is nearly $3\frac{1}{2}$ millions. The increase between 1916 and 1919 was over a quarter of a million, and, unlike the West Indies and Central America in general, Cuba has a population of which nearly three-fourths are white, and only one-fourth negro or mulatto. Nearly 40,000 Spanish immigrants entered the country in 1919. The total foreign trade has steadily increased, and averaged £190 millions (£63 a head) from 1918 to 1921. The excess of exports was £32 millions, a result due mainly to the high price of sugar. At present more normal price levels the foreign trade is £120 millions, with exports decidedly in excess, and the *per capita* trade is at the more moderate figure of £34.

Havana (Habana) is the largest city in Central America, and has 360,000 inhabitants, its prosperity depending, however, on the famous tobacco and not on sugar. Santiago (the south-eastern seaport), Matanzas, Cienfuegos, Camaguëy, Santa Clara, Sancti Spiritus, Guantánamo, Pinar del Río and Manzanillo are all towns of over 50,000 inhabitants.

Cuba.

Position and General Physical Conditions.—Cuba is the largest of the Greater Antilles, and lies just within the Tropics, at the mouth of the Gulf of Mexico. The Strait of Florida separates it from the United States, and the Strait of Yucatan from southern Mexico. The coastline is deeply indented, with many good harbours, and the interior is diversified by hill and mountain ranges, notably the S^a. de los Organos in the west and the far loftier S^a. Maestra in the east, both having a west to east trend. Cuba, like other tropical islands, has a warm and pleasant winter climate, while the summer heat is tempered by the sea breezes, and by the plentiful rainfall during that season. The natural vegetation is a luxuriant tropical forest, containing mahogany, cedar, logwood and other valuable timbers, of which thousands of square miles remain uncleared. On the S^a. Maestra there are temperate forests with oaks and pines.

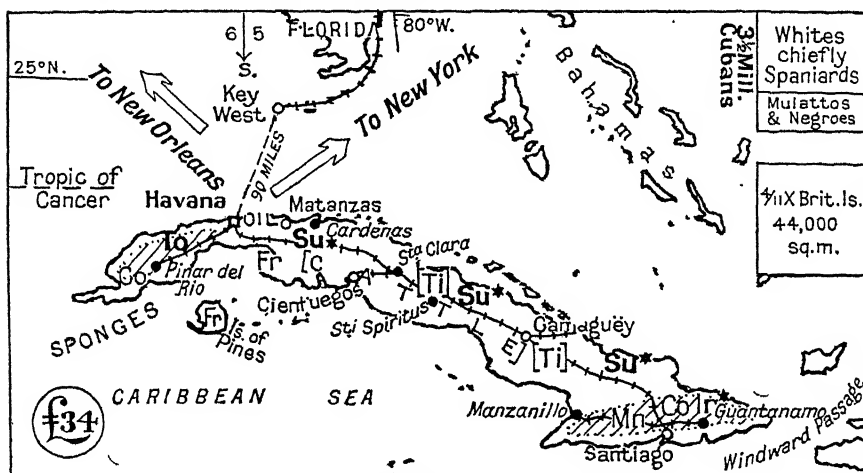


FIG. 34.—CUBA.

Human and Economic Conditions.—A great variety of tropical fruits, vegetables and cereals is grown for the local food supply, but the chief money crop of Cuba, except in the extreme west, is **sugar**. The crop is grown on large plantations, many of them owned by foreign capitalists (Americans and Europeans), and equipped with up-to-date machinery, many hundreds of miles of plantation railway bringing the canes to the centrals. Of these a majority are in Matanzas and in Sta. Clara, the two provinces immediately east of Havana, where three-quarters of the cultivated land is under sugar. Camaguey and Oriente provinces are also very heavy producers. The production increased enormously, from just under 2 million tons in 1910, to 2½ millions in 1914, and then up to 4½ millions in 1918–19, a figure which represents the present average. Java, the world's second largest producer, has never greatly exceeded a total of 2 million tons. Apart from the world shortage of sugar in the post-War years, Cuba has at her doors, the huge United States market, that country spending over £63 millions on sugar in 1918–19. A reciprocal tariff allows the free entry of Cuban sugar into the States, whereas the British West Indies have no

Cuba.

such advantage. The plantations attract labour from Haiti, Jamaica and Barbados. In 1921 sugar prices fell to less than one-third their level early in 1920, so that Cuban prosperity received a check. The value of the crop to-day is, however, well over £50 millions.

Second in importance to sugar is the **tobacco** crop, the world-famous Havana cigar-tobacco being grown on the southern slopes of the S^{te}. de los Organos in Pinar del Rio province. Most of the crop is manufactured in the country, giving rise to the valuable *cigar*, cigarette and tobacco industry of Havana. In 1927 over 90 million cigars and 3 million packets of cigarettes were made, and the total export value of the tobacco products was £9½ millions. Since the United States has not waived the duty on imported tobacco, there is a Havana cigar-manufacturing industry carried on (largely by Cubans) at Key West, on the coral reef off the coast of Florida, 90 miles across the Strait. The well-known cigar-boxes are made in Cuba from cedar-wood, which is abundant.

The proximity of Cuba to the States and the existence of a car-ferry from Havana to Key West has led to a trade in winter *vegetables*, and *fruits*, notably pineapples and bananas, besides oranges and grape-fruit, during the months before the Florida and California crops ripen. The Isle of Pines is a leading fruit region. Another industry of some importance is the collecting and extraction of wild **honey**, the export amounting to over 100 million gallons, worth £1½ millions. Over 1 million lb. of **beeswax** are also exported. *Sponges* are fished.

The *cattle* industry of Cuba is flourishing, live-stock having considerably increased during the last few years. The latest returns give the number of horned cattle as 4½ millions, and of horses over ½ million.

The forests yield *timber* for local purposes, e.g. cedar for cigar-boxes, and a little **mahogany** is exported, but there is room for considerable development, as there is also in the *mining* industries. The S^{te}. Maestra are rich in iron, manganese and copper, which are worked to some extent, the output of **iron ore** (from the Mayari mines) averaging ½ million tons, and that of **manganese** ore about 50,000 tons. The copper mines are at present closed down, and the output of 26,000 tons of copper ore is from the Pinar del Rio mines. All ores are shipped to the United States.

Trade Relations.—The railway system of Cuba has been greatly extended, and is now fairly complete (3,200 miles). Shipping facilities are also good, exceptionally so at the port of Havana. The bulk of the trade is with the United States, which takes nearly 80 per cent. of the exports and supplies 60 per cent. of the imports. That of the United Kingdom is very one-sided, this country taking 10 per cent. of the exports, but supplying only 4 per cent. of the imports. Spain (with the advantage of a common language and neutrality during the War) has an equal position as regards the import trade, supplying 4 per cent. of the goods required, but taking less than 1 per cent. of the exports. Food-stuffs make up one-quarter of the total imports, while other large classes are textiles (principally cottons), machinery, metals and metal manufactures, fertilizers and chemicals. A recent detailed list of requirements includes sugar-making machinery; agricultural machinery and implements; electrical machinery; sewing machines, motor-cycles, bicycles and parts; chemicals, acids, fertilizers, salt and oxides; textiles, woollen goods, cotton piece goods; knitted goods, laces and trimmings; linen fabrics; jute bags; boots and shoes; cutlery,

Curaçao.

crockery, earthenware and hardware ; structural iron and steel, barbed and plain wire, nails, pipes and rails. There is a market also for expensive luxury articles for the newly rich.

General Information.—The unit of currency is the gold *peso*, equivalent in value to the United States dollar, the 5, 10 and 20 peso pieces corresponding to the American gold coins. United States coinage is also legal tender. The chief banking establishments are the Royal Bank of Canada, and the National City Bank of New York. The metric system of weights and measures is in use. The language spoken is Spanish. Mails reach Cuba from London in 10–13 days, from New York in $3\frac{1}{4}$ days. There is cable connection with New York and South America. A British Consul is stationed at Santiago, Vice-Consuls at Camaguëy (in the interior), Cienfuegos and Nuevitas. There is a Consul-General at Havana. Cuba is a member of the League of Nations.

CURAÇAO

Area and Population.—Curaçao is a Dutch Colony administered by a Governor. The total area is about 400 square miles, the islands included being Curaçao (210 square miles), Bonaire, Aruba, St. Martin, St. Eustache and Saba. The population is 61,000, of whom 41,000 live in Curaçao island, while of these more than 19,000 are found in the chief town and seaport, Willemstad. The white element in the population is mainly Spanish, and the bulk of the people are Roman Catholics. The total trade has risen rapidly from £3 millions to £23 millions, consequent on the establishment of a great oil-refining industry. Willemstad is a free port, with a large and safe harbour, and is visited by over 8,000 ships yearly, including the vessels of war of various nations cruising the Caribbean waters. Hence there is a large trade in ships' supplies and luxuries, besides bunkering coal and oil.¹

Position and General Conditions.—Curaçao, Bonaire and Aruba lie just off the mainland of Venezuela (South America), and Curaçao serves to a certain extent as an entrepôt for this State and the neighbouring Republic of Colombia. The group is outside the hurricane track, and is free from earthquakes, while as in other small tropical islands the climate is healthy and delightful. The latitude of these three islands is about 12° N. St. Martin, St. Eustache and Saba lie some distance away, between the Virgin Islands and St. Kitts, in the Leeward Group. They produce **salt**. The Curaçao group proper grow maize, beans and **sisal**, and such peasant industries as sandal-making, straw hat and lace-making flourish owing to the ready market. The manufacture of artificial ice and oil refining are important at Willemstad. Crude oil is imported from Colombia, Venezuela and Trinidad.

General Information.—The unit of currency is the *guilder* (normally, 12 guilders = £1). The Dutch West Indian Bank does business at Curaçao. There is cable communication via Haiti with the United States. There is a British Vice-Consul at Curaçao.

¹ For Map see Venezuela.

*Cyprus.***CYPRUS**

Area and Population.—Cyprus, formerly a Turkish Dependency administered by Great Britain, is now a British Colony, having been annexed in 1914. It is administered by a Governor. The area of the island is nearly 3,600 square miles, i.e. about half the size of Wales, and the population rather over 300,000. The capital and largest town is Nicosia, in the interior, with 16,900 people. The three chief ports, Larnaka, Limassol and Famagusta, have each between 5,000 and 10,000 inhabitants. About one-fifth of the Cypriotes are Moslems, and the majority of the remainder are Christians, adhering to the local Church of Cyprus. The predominating race is Greek, and the modern Greek language is most commonly spoken, although the official language is English. The population includes also Turks (speaking Turkish) and Armenians.

Cyprus is valuable as a source of agricultural produce, and has an average external trade of over £3 millions, or about £10 a head.

Position, Climate and General Physical Conditions.

—Cyprus lies in the eastern Mediterranean, not far from the coast of Syria and to the north of Egypt, between latitudes $34\frac{1}{2}^{\circ}$ and $35\frac{1}{2}^{\circ}$ N., i.e. in the latitude of northern Morocco. Hence the climate is decidedly of the Mediterranean type, with very hot, dry summers, and moist, warm winters. Running streams and rivers become dry torrent beds in summer. The greater part of the island is hilly or mountainous, a ridge running along the northern coast, and forming a long promontory to the north-east, while a wider range occurs in the south. Between the two lies the Mesaoria plain, intensely hot in summer, in which Nicosia stands. Numerous valleys intersect the hills, and the island has always been renowned for its fertility. Forests of oak and pine occur on the well-watered ranges, and the Department of Forestry is engaged on the work of conservation and reafforestation. On the lower hill slopes the usual evergreen and aromatic shrubs and small trees of the Mediterranean seaboard occur. First-class timber forest covers 220 square miles, mixed timber and scrub 174 square miles, and scrub forest 306 square miles, i.e. 700 square miles in all, or rather under one-fifth of the island. During the War, wood for fuel was supplied to Egypt, where timber is absent.

Human and Economic Conditions.—The majority of Cypriotes are peasant farmers, and about one-half the total area of the island is under cultivation, while a further 320,000 acres might be cultivated. Methods are very primitive, e.g. the wooden plough is used, and oxen are employed to tread out the corn on the threshing floors, but great improvements are being effected by the Agricultural Department, and there is a growing demand for modern ploughs, cultivators, tractors, and agricultural machinery generally. Artificial manuring is also on the increase, and irrigation is practised where possible.

The Mediterranean climate is, of course, peculiarly adapted for cereals, and **wheat** and **barley** are the leading crops, both of which in good harvest years yield a surplus for export. Considerable attention is paid also to vegetables, and there is a considerable export of *potatoes* to Egypt and Syria, and a smaller one of *onions*. On irrigated lands *cotton* does well, and the 1927 crop was 5,600 bales: the bulk is exported to Greece

Cyrenaica.

(value £57,000). **Tobacco** is widely grown, and is exported to the United Kingdom, but there is room for improvement of quality. Tree culture is important, since trees are well adapted to withstand seasonal drought. The *olive* and **carob** are the most important cultivated trees, and are found also growing wild. The olive-oil produced does not supply local needs completely, but the carobs (locust beans) are exported in quantity, mainly to the United Kingdom, where they are used as cattle-food, and to adulterate chocolate. The value in 1927 of this export was over £300,000. The cultivation of Spanish *chestnuts* has begun. Fruit-trees also do very well, and there is a small export of fresh fruit (pomegranates, oranges, plums) to Egypt, while the *dried fruit* industry (apricots, figs, raisins, etc.) is capable of great development. The **vine** also finds suitable climatic conditions, and wine production is important, a considerable surplus remaining for export to France (value over £56,000) after the local market has been satisfied. The **raisin** and **sultana** industry is increasing, the export value being over £86,000. The stock-raising industries are of local importance only, *sheep* and *goats* being the principal animals raised. *Silkworms* are also reared, and cocoons exported. Mining, so important in ancient days, is being revived, but at present *asbestos* from Mt. Troödos and *copper pyrites* are the only products of importance with an export value of £40,000 ; they go chiefly to Italy. The **sponge** fisheries of the surrounding seas are mainly exploited by boats from Greece.

Manufactures are of very little importance. They include a little silk and cotton weaving, and the manufacture of tobacco and cigarettes.

Trade Relations.—The exports of Cyprus go largely to Egypt, Syria and Greece, but the United Kingdom takes a considerable proportion, and France is a buyer of Cypriote wine. The imports consist, as regards nearly £1 million in value, of miscellaneous manufactured goods, coming mainly from the United Kingdom, but also from Germany, France, Greece and Italy. Small consignments of various food-stuffs, including colonial wares and of tobacco, have a total value of nearly £½ million.

The chief port is Famagusta, which handles the bulk of the external trade ; Limassol and Larnaka are of secondary importance. Famagusta has the advantage of standing at the eastern extremity of the Mesaoria plain, through which the principal railway runs.

General Information.—The unit of currency is the pound sterling, but the *piastre* at the rate of 180 piastres to the sovereign is in common use. Government currency notes of 5s. and upwards are the main medium in circulation at present except for small amounts. The chief banking establishments are the Ottoman Bank, the Ionian Bank, and the Bank of Athens (with London offices), which are not empowered to issue notes. A Bank of Cyprus has been established. The unit of weight is the *oke* (800 okes=1 ton) or the *cantar* (44 okes), and the unit of capacity the *kile* of 8 gallons.

Mails reach Cyprus in 7 days. The Comptroller of Customs and Excise at Larnaka acts as Imperial Trade Correspondent, and there is a Trade Commissioner in London.

CYRENAICA

See *Italian Libya*, p. 271.

CZECHOSLOVAKIA

Area and Population.—The Republic of Czechoslovakia has an area of about 56,000 square miles (nearly half that of the British Isles) and a population of about 14 millions. It includes Bohemia and Moravia, formerly parts of Austria, in which a majority of the population are Czechs, and Slovakia, formerly part of the Kingdom of Hungary, in which a majority of the inhabitants are Slovaks.* Both Czechs and Slovaks are of Slavonic race, but the population includes a large German minority, especially on the borders of Germany and Austria, and a considerable number of Magyars. There is besides, in the extreme east of the new State, an area mainly inhabited by Ruthenians, who are akin to the Russians of Ukraine, and these people have been granted autonomous government within the Republic. The capital and largest city is Prague (Praha) on the Moldau, in the centre of Bohemia, with over 670,000 inhabitants, while Brunn (Brno) in Moravia (220,000 inhabitants) is second in importance. The chief Slovak city is Pressburg, (now called Bratislava), a port on the Danube with 93,000 people. All these three cities have Universities. Other large towns are Kaschau (Kosice) in the east of Slovakia, Pilsen in Bohemia (111,000), Olmütz in Moravia, and Ostrau (171,000), a great mining centre. The external trade of the new State was £270 millions or nearly £20 *per capita* in 1928, exports accounting for 53 per cent. and imports 47 per cent. Czechoslovakia has large internal resources, besides many important and old-established industries, and hence takes a leading part among the small States of Central and East Central Europe. Education is advanced, and the percentage of illiterates very low.

Position and General Physical Conditions.—Czechoslovakia lies between latitudes $47\frac{1}{2}^{\circ}$ N. and 51° N., i.e. in the same latitudes as Northern France and Southern England, but owing to its inland situation has a more extreme climate, the average January temperature being well below freezing-point, while the summers are as hot as in Bordeaux. On the plains of Bohemia and Moravia, which are hemmed in by mountains and hills, the rainfall is moderate (about 20 in.), and falls chiefly in summer, but the mountains, especially in Slovakia, have considerable rains, and heavy snow in winter. The Bohemian Forest, Erz Gebirge, Giant Mountains and Sudetes close Bohemia in on three sides, while the fourth lies fairly open south-eastwards to Moravia. A gorge has, however, been cut by the Elbe through the northern rim, and thus the drainage of Bohemia (by the Elbe, Moldau and Eger) is to the north German Plain, and modern routes follow this direction. Slovakia lies almost entirely among the Carpathians, which broaden out in the west to three distinct masses—the Western Carpathians, Tatra and Hungarian Ore Mountains. Between the Western Carpathians and the Sudetes is a low sill—the Gate or Gap of Moravia—through which the Slavonic population entered this region. The head-streams of the Oder (flowing to the Baltic) and of the March (flowing to the Danube) are in the Gate, which is an important route-way from the Danube Basin to the Northern Plains (Germany, Poland, Russia) and a canal is planned to join the two rivers. Slovakia, like Moravia, is drained to the Danube, the Waag and Gran being the chief rivers, and these flow in their lower courses across part of the Upper Hungarian Plain, which is the chief lowland occupied by the Slovaks. Farther east the mountain belt narrows, and its crest is lowered.

Czechoslovakia.

Here a part of the plain of the upper Theiss is included within the boundary of the new State.

Human and Economic Conditions.—A recent estimate gave 40 per cent. of employed persons in Bohemia and Moravia as engaged in industry, as against 35 per cent. on the land, but in Slovakia and Ruthenia 63 per cent. of the population is engaged in agriculture. The lowlands of Bohemia and Moravia are fertile and produce good cereal crops—*wheat, rye, oats and barley*—while from the south Slovakian plains and valleys comes in addition some *maize*. There is an export of brewing *barley* to Great Britain. Root crops are important, especially **potatoes** and **sugar-beets**. The former are used largely for the distillation of *alcohol*, and the latter yield a considerable surplus of **sugar** for export, this being one of the leading economic assets of the country. Deep ploughing by cable ploughs is resorted to, only tested seeds are used, and the disposal of the by-products—molasses, alcohol, fodder and manure—is carefully organized. The chief refineries are in the Prague district, and the output has risen steadily until it is now over 1 million tons.

Hops are grown in the Eger valley (Saaz), and near Olmütz (Moravia), and these, with the local barley crop, are the raw material for the famous light *beers* brewed at Pilsen, Prague and many small country towns, which are in wide demand. A few thousand tons of hops are sold abroad. *Flax* is a minor crop of Bohemia and Moravia, while some *hemp* and *tobacco* are cultivated in Slovakia. *Vines* are fairly widely distributed, but are of local importance only. Orchard *fruits*, however, are an article of commerce, particularly apples, pears, plums and cherries.

The **timber** resources of the country are very considerable, the mountain borders of Bohemia and the Carpathian Mountains being clothed with forests of *oak* and the less valuable *beech*, besides *pine* and *fir* at higher altitudes. These forests are systematically and scientifically exploited, and there is a large output of *sawn timber*, pit props, ply-wood, wood wool, paper pulp, *paper*, cellulose and cardboard. There is, besides, the manufacture of the well-known "Austrian" bent-wood *furniture*, and of *pencils* at Budweis.

Mixed farming is usually pursued, so that there are normally sufficient cattle, sheep and pigs for local requirements, the cattle being usually stall-fed in the lowlands, or pastured in the open on the hills and mountains.

The *mineral* resources of the new State are very considerable, the abundance of **coal** being the basis of the manufacturing industries. There are mines both in Bohemia (Kladno, Pilsen, Schatzlar, Šchwadowitz) and in Moravia (Mährisch Ostrau and Rosnitz), while some brown coal is obtained from Handlova (Slovakia) and there are large deposits of lignite in the Eger valley (Bohemia). Although there is an export of inferior coal, coking coal is deficient and is obtained from Silesia. Hence the chief smelting works are in Moravia, although Prague is also an important centre. The output is about 1½ million tons of *pig-iron*, 1½ million tons of raw *steel*, and 1½ million tons of wrought *steel*. **Iron** ore is plentiful, especially in Bohemia and Slovakia. There is also a small, but useful, output of *zinc, copper, gold and silver*. The **oil**-fields of Slovakia have not fulfilled their promise. In the mountains of Slovakia there are unworked deposits of tin, cobalt, nickel, manganese and copper, but their value cannot yet be estimated.

The excellent *kaolin* of the Karlsbad district has given rise to an important *porcelain* industry, while the fine glass sands, also found mainly in the

Czechoslovakia.

north-west, are the basis of a large **glass** manufacture, centred at Prague, Teplitz, Olmütz, Aussig and Neustadt. Bohemia makes about 6 per cent. of the world's bottles, besides window glass, table, ornamental, and scientific glass and glass beads.

The manufacture of *textiles* is associated with Prague and Brünn, and in

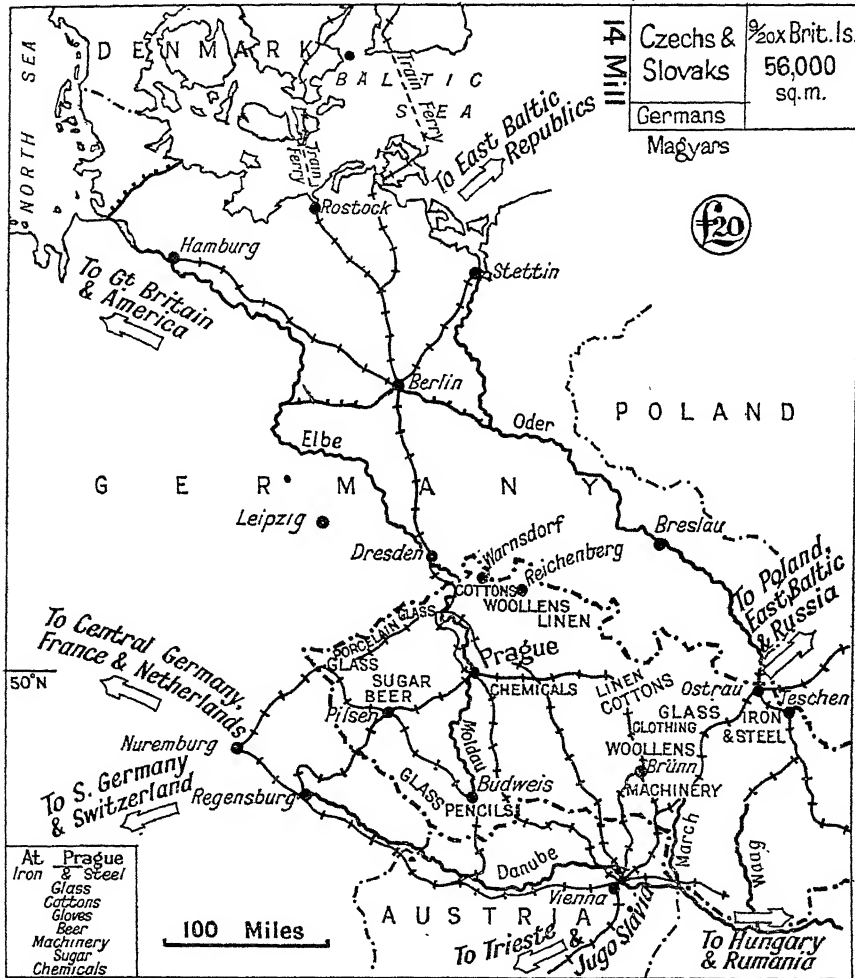


FIG. 35.—CZECHOSLOVAKIA: MANUFACTURES AND COMMUNICATIONS.

general with the north-east of Bohemia and the north of Moravia. *Cottons*, *woollens* (partly with local wool), *linens* (based partly on local material) and a little *silk* are all noteworthy, this region having supplied 80 per cent. of the total output of the former Austrian Empire in this respect. Certain classes of woollens, e.g. flannels and cheap carpets, are also marketed abroad.

Danzig.

The **leather** industry is well established, including the manufacture of *boots and shoes* for home consumption and for export, and the manufacture of *gloves*, the latter amounting to 1½ million dozen pairs, which as "Austrian" gloves were well known in foreign markets.

Chemical industries are important at Prague, Brünn and elsewhere, there being a large-scale output of artificial manures, potash (for the glass industry), sulphuric acid, and matches. **Machinery** is also manufactured in the leading cities, especially railway plant, textile and sugar-milling machinery, agricultural machinery and tools. The steel-works also turn out constructional steel, steel rails and so forth, and there are numerous miscellaneous *metal manufactures*, such, for example, as electrical apparatus and fittings. The Skoda Iron Works are the second largest in Europe.

Miscellaneous *hard-ware*, *hollow-ware*, enamel-ware, and aluminium-ware are all manufactured, besides a very wide range of *fancy goods* of glass, leather, paper, metal and so forth.

The configuration of the country favours the development of hydro-electric power, which makes steady progress, notably on the upper Elbe, on the upper Ultava (Moldau) and in the March (Morava) valley.

General Information.—The unit of the currency is the *krone*, of which 164.25 kr. = £1, and the metric system of weights and measures is in general use. The Anglo-Czechoslovakian Bank has taken over the branches of the former Anglo-Austrian Bank, and a National Bank was established in 1926.

The Czech and Slovak languages are officially in use, but German is widely understood. Mails reach Prague in 1½–2 days, or in 1¼ days by air mail. There are British Consuls at Prague, Brno, Liberec, Karlsbad and Bratislava (Pressburg), and a Commercial Secretary is attached to the British Embassy. Czechoslovakia is a member of the League of Nations.

DAHOMEY

See **French West Africa**, p. 194.

DALMATIA

See **Yugoslavia**, p. 463.

DANISH WEST INDIES

See **Curaçao**, p. 140, and **Dutch Guiana**, p. 158.

DANZIG

Area and Population.—The Free City of Danzig, constituted in 1920, has an area of 754 square miles and a population of 390,000, of whom about 25,000 are Poles and the rest (apart from foreigners) are Germans. The City has entered into fiscal union with Poland, and is under Polish

Denmark.

suzerainty as regards foreign affairs. It is under the protection of the League of Nations, which appoints a High Commissioner.

Position and General Conditions.—Danzig stands at the mouth of the Vistula, and is the leading port of the Eastern section of the Baltic Sea. Vessels drawing up to 23 feet can discharge at all seasons, a channel being kept open by ice-breakers in winter. Nearly 4 million tons of shipping entered and discharged at Danzig in 1927 as against 1 million before the War, since it is the main outlet for the *grain, timber* and *sugar* of a great part of the European Plain. It now serves as the chief seaport for the Polish Republic, although a new port on Polish territory has been constructed at Gdynia. It has important ship-building yards and excellent repairing docks. A large proportion of the trade is with Great Britain.

German currency is in use, and the metric system of weights and measures, but the pound sterling is current at the rate of 25 Danzig gulden. There is a branch of the German Bank and of the British and Polish Trade Bank in the City, besides fifty other banking establishments or agencies. There is a British Consul at Danzig.

DARFUR

See **Anglo-Egyptian Sudan**, p. 12.

DENMARK

Area and Population.—The Kingdom of Denmark has an area of 16,600 square miles (about one-seventh the size of the British Isles), and a population of 3½ millions (one-fourteenth that of the British Isles). These figures include North Slesvig, transferred from Germany. The country consists of the mainland peninsula of Jutland (which forms two-thirds of the whole area, but has less than half the total population) and a number of islands in the Baltic Sea, of which Zealand, Funen, Laaland, Falster and Möen are the chief. The only large city is the capital, Copenhagen, situated on the east coast of Zealand, which has (including the suburb of Frederiksberg) 730,000 inhabitants. Aarhus, the chief town of Jutland, also facing east, has only 76,000 people, Odense on Funen has 52,000, while Aalborg, Horsens and Randers, small towns also in the east of Jutland, have from 25,000 to 40,000. The large aggregation of shipping, trading, manufacturing and fishing population at Copenhagen brings the total urban population up to rather more than 40 per cent., although, broadly speaking, Denmark is decidedly rural. The population has increased by about a million in the last fifteen years, but there is a steady drain of several thousands of persons a year by emigration to the United States and Canada. The foreign trade before the War was steadily increasing and had reached £90 millions, or about £30 a head, imports being normally in excess of exports, the balance being paid for by the services of the Danish merchant marine. The entrepôt trade (centring at Copenhagen) had a value of about £10 millions, and several millions of

Denmark.

pounds worth of goods are also transhipped at the same point. In 1919 the total trade was £191 millions, or nearly £64 a head, this high figure being due to a sudden increase of imports consequent on the scarcity of goods during the war years. A maximum figure of £249 millions was reached in 1924, while the present figure is about £186 millions, with imports slightly in excess. This works out at £53 per capita.

Position and Climate.—Denmark lies roughly between 54° and 58° N. latitude, i.e. in the same latitudes as Britain from North Yorkshire to Aberdeen. Thus the climate resembles that of the north-eastern counties, save that it is rather more severe in winter, and a little hotter in summer. The rainfall tends to be heaviest in the summer and autumn months, and averages 30 to 40 in. The harbours can always be kept open by ice-breakers.

General Physical Conditions.—As the distribution of towns and seaports shows, the eastern side of Jutland and the Baltic islands are the most favourable to human settlement. The west of Jutland presents a smooth dune-bordered coast to the North Sea, with shallow sheets of water behind the lagoons. There are no natural harbours, Esbjerg being artificially created to deal with the growing direct trade with the British Isles. The soil in this region is infertile, and here occurs most of the unproductive land of Denmark—largely moor, heath and peat-bog. The eastern region is built largely of chalk; there are numerous inlets affording deep and safe anchorage, and the soil is generally a fertile loam. Hence the outlook of Denmark is normally to the Baltic and to the Continent, rather than to the North Sea or across the Atlantic. Much of the chalk country was formerly covered with beech forests, but the wooded area to-day is only about 800 square miles.

Human and Economic Conditions.—Denmark is predominantly an agricultural country, and farming is carried on upon modern scientific lines, there being a large number of agricultural schools and an important Agricultural College at Copenhagen. Education generally is in an advanced state, and a feature of rural life is the strength of the co-operative movement. Nearly 7 million acres are under cultivation, the majority of holdings being relatively small—from 45 to 90 acres—thus facilitating intensive cultivation. Over a million acres are under **oats**, and half a million each under **rye** and **barley**, the latter used both for brewing and for fattening pigs. Wheat, to which the climate is not very well suited, is comparatively unimportant. Root-crops for fodder, sugar-beets and *potatoes* are also very generally grown, the last named being used for the distillation of brandy. The output of **beet-sugar** was 141,000 tons in 1921, and 137,000 tons in 1927, as against 135,000 tons in 1912.

The agriculture of Denmark is, however, an industry subsidiary to stock-raising, more than half the cultivated area being under pasture and meadow. There were in 1928 over 560,000 *horses*, 3 million *cattle* (including about 1½ million milch cows), nearly half a million *sheep*, 3 million *pigs* and 18 million head of *poultry*. These figures compare favourably with those of the census for 1922. The number of horses and horned cattle shows an increase, and although the number of sheep is stationary, pigs have increased by 1 million. The 1916–19 decrease was due to the difficulty of importing food-stuffs during the war years, the home-supply being inadequate to the number of animals reared. The result was the falling off

Denmark.

in the export of animal produce which is Denmark's staple of trade, for even apart from the decreased numbers of stock, those remaining gave a lower yield of milk, lard, bacon, etc. The ratio of pigs to persons is greater than that in the United States.

It is in the *dairying* industry that the co-operative movement is strongest, the majority of the 400,000 members of such societies being joint owners of creameries (for **butter** manufacture) and of **bacon**-factories. Previous to the War the export of Danish butter to Great Britain alone was valued at £10 millions, and that of bacon at £7 millions. The corresponding figures to-day are £17 millions and £22 millions, but Irish competition in the English market may reduce these totals. Germany is also a large customer for the same classes of goods, including **lard**. Tens of thousands of cases of *eggs* are now shipped weekly to the British Isles, the total egg trade being worth £4½ millions.

With the renewed post-war import of maize, cotton-seed and linseed, the animal industries returned to normal. An indirect effect of the war shortage was to lessen the home supplies of manure, and that at a time when imports were likewise cut off, so that although high prices brought apparent prosperity to the farmers, the actual wealth of the country was diminished by impoverishment of the soil as well as by depletion of stock.

Developing in the first instance from the dairying and sheep-rearing industries, the manufacture of **margarine**, now derived entirely from vegetable oils, had assumed an important position in Denmark. The pre-war output reached about 50,000 tons, but by 1918 the industry was brought to a standstill, since the raw material could not be imported from abroad. It has subsequently revived completely, the 1921 output being over 55,000 tons and that of 1927, 72,000 tons.

The *fisheries* of Denmark, in and about the Belts and Kattegat, and in the North Sea, are of considerable value, the catch being worth about £1 million in 1914, and averaging £2 millions in the period 1916-27. Herring and mackerel are of first importance, followed by cod and flat-fish.

With excellent shipping facilities, and a large entrepôt trade at Copenhagen, Denmark normally finds it easy to import fuel and, if necessary, raw material for her manufacturing industries. There is a large home supply of hides and skins, and the output of the *tanneries* and *boot and shoe* factories is valued at £5 millions. Odense is an important leather market for foreign buyers, especially for calf-skins. The *woollen* industry is also flourishing, producing goods to the value of over £2 millions, while *cottons*, *paper*, *glass-ware* and *dairying machinery* are also manufactured. The high price of coal and coke has been a very serious handicap to Danish industry, both directly and indirectly as raising the cost of transport. Coal forms a very heavy item on the list of imports, and the inflated price at which it was bought during the War contributed to the adverse balance of trade, which in turn resulted in a depreciation of the krone, now practically at par.

Trade Relations.—Concentrating as she does upon the dairying and allied industries, Denmark requires a very wide range of imports. They include wheat and wheat flour, maize, cotton-seed and linseed, vegetable oils and oil-seeds, colonial wares, manures, coal and coke, petrol and benzine, building materials such as granite, iron goods, including bars, plates, rails, wrought iron and hardware, timber, metal goods, etc. Germany takes the lead in supplying these imports, followed by the United States,

Dominican Republic (Santo Domingo).

which has relegated Great Britain to the third place in the last few years. Then come Sweden and Norway ; there is also a considerable direct import of grain from Argentina. Great Britain and Germany between them, with their almost unlimited demand for food-stuffs, take the bulk of the export trade, followed at a considerable distance by Sweden and Norway with their much smaller populations. Nearly all the trade is centred in Copenhagen, the secondary port being Aarhus. Trade with Sweden is facilitated by train-ferries across Kattegat, and in general the transport system of Denmark is adequate, train-ferries also linking Jutland, Funen and Zealand. The Danish merchant fleet had in 1914 a tonnage of nearly $\frac{3}{4}$ million, which was reduced by war losses to little more than half a million, but has now risen again to over 1 million. Copenhagen, including the Free Port, can accommodate vessels up to 30 ft. draught. Esbjerg, the port for quick traffic with Britain, has a minimum depth of 25 ft.

General Information.—The unit of currency in Denmark is the *krone* of 100 *öre*, worth 1s. 1½d., or 18·16 to the pound sterling. The standard of value is gold, but the actual currency consists of notes issued by the National Bank. The leading London banks act as agents for the Danske Andelsbank, the Kjöbenhavns Handelsbank, and the Privatbanken i Kjöbenhavn. The metric system of weights and measures is in general use. Mails from London reach Copenhagen in 2 days, or by air in 11 hours. There are British Consuls at Copenhagen and Aarhus ; Vice-Consuls at Esbjerg, Odense, and a number of minor ports and market centres. A Commercial Secretary is attached to the British Legation. Denmark is a member of the League of Nations.

DIEGO SUAREZ

See **Madagascar**, p. 295.

DJIBOUTI

See **French Somaliland**, p. 193.

DOMINICAN REPUBLIC (SANTO DOMINGO)

Area and Population.—The Dominican Republic, for eight years under a Military Governor appointed by the United States, in 1924 adopted a new Constitution and elected a President. The total area is rather more than 19,000 square miles (one-third the size of England and Wales) and the population numbers nearly a million. The birth-rate is high and the death-rate low, so that labour is abundant. The pure white population is small, consisting of descendants of Spanish settlers, the mass of the people being of mixed Spanish, negro and (West) Indian descent. The total foreign trade for 1918 was £8½ millions, or nearly £9 a head, and in this year, owing to shortage of shipping, the demand for imports could not be supplied, while since this date production has increased. Latterly the trade has remained steady at £11–12 millions per capita, and the 1927 total was £11½ millions.

Dominican Republic (Santo Domingo).

The capital city, Santo Domingo, on the south coast, has 27,000 inhabitants : Santiago, lying in the upper valey of the Yaque, has 15,000 ; San Pedro de Macoris, also on the south coast, has 10,000.

Position and General Physical Conditions.—The Republic forms the eastern half of the island of Haiti, one of the Greater Antilles, lying between Cuba and Porto Rico. It extends between 18° and 20° N. latitude, and between 68° and 74° E. of Greenwich. Hence the climate is tropical, with plentiful summer rains, the prevailing winds being north-east. Mountain chains run through the country from west to east, so that whereas round the coast sea-breezes temper the heat, the interior is cooled by the elevation of the land. The soil, especially in the many valleys, is extraordinarily rich, and there are hundreds of square miles of

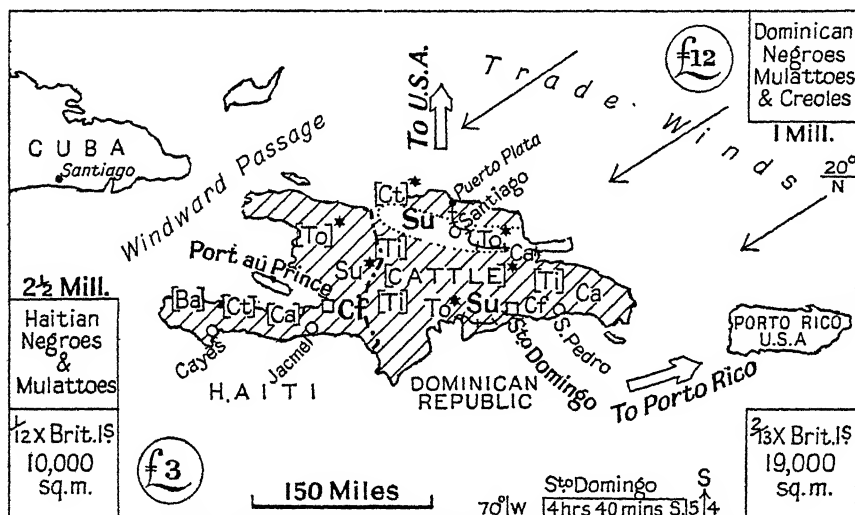


FIG. 36.—DOMINICAN REPUBLIC AND HAITI.

virgin forest, tropical in character (mahogany, satinwood, bananas, palms), on the lowlands, and temperate (with fine pine-trees) on the Cordillera. Hurricanes are occasionally very destructive.

Human and Economic Conditions.—The Dominican farmers grow bananas, maize, coco-nuts, tobacco, and many varieties of fruit and vegetables for their own use, the methods employed being very primitive. The principal money crop is **sugar**, of which the output has reached 300,000 tons, or nearly three times that of Demerara (British Guiana). Much of this is grown on large estates owned by American companies, on which there are over 250 miles of light railways, and much money is being spent on improved mills and machinery. Second in importance is **cacao**, of which the output is between 20,000 and 30,000 tons, a large proportion being consumed locally. The more rainy eastern part of the island is most suited to cacao, the valleys affording shelter from the wind.

Products to which increased attention is being given, and which are assuming importance, are **tobacco**, **coffee**, and **cotton**, the last being grown

Dutch East Indies.

under irrigation in the Monte Cristi district in the north-west. Since coconuts, soya-beans, castor-oil plants and ground-nuts all do well in the country, it is considered that capital and enterprise could profitably be devoted to the *vegetable oil* industry.

The hills and mountains afford suitable grazing grounds for **cattle**, and the existing industry might be greatly extended, since at present dairy products are imported. The forests have been exploited only for the needs of their immediate neighbourhood, but both hardwoods (especially *mahogany*) and softwoods are abundant, and might be floated down the Yaque River to Monte Cristi.

The central Cordillera are rich in *minerals*, which, owing to the inaccessibility of the interior, remain unworked. Copper appears abundant, and there is both gold and silver, besides manganese and iron. There are also vast deposits of rock salt.

Trade Relations.—The only railways (153 miles) are in the north of the Republic, running from Sanchez on Samana Bay through Santiago to Puerto Plata. The latter lies about 1,300 miles south of New York, and is the chief shipping port for sugar. The United States, which before the War took rather more than half the exports and supplied two-thirds of the imports, temporarily captured 80 per cent. of the trade in each direction. The more normal wider distribution has now revived, but three-fifths of the imports still come from the States, and the remaining two-fifths are competed for by Great Britain, Germany and France. British India supplies rice and bags. The neighbouring United States' island of Porto Rico has a small place in Dominican trade, since some of the raw sugar is sent there for refining, and refined sugar, provisions, cigars, cigarettes and re-exports are sent from Porto Rico in return. From 30 per cent. to 45 per cent. of the exports (chiefly sugar) go to Great Britain, and about 25 per cent. to the States, while France and Canada are important buyers.

General Information.—The State religion in the Dominican Republic is Roman Catholicism. The language spoken is Spanish. The unit of currency is the United States gold dollar. The Royal Bank of Canada and the National City Bank of New York have branches in the principal cities. The metric system is legally adopted, but both English and Spanish weights and measures are in common use. There are cables to New York, Porto Rico and Curaçao, and a Government inter-urban telephone system is well developed. Mails from New York reach the Republic in 7 days, from London in 14–20 days. There are British Vice-Consuls at Puerto Plata, San Pedro de Macoris and Sanchez, and a Consul at Santo Domingo. The Republic is a member of the League of Nations.

DUTCH EAST INDIES

Area and Population.—The Dutch East Indies are usually divided into (1) Java and Madura, which are highly developed; and (2) the Outer Possessions, which in the main are only locally developed. The Outer Possessions include Sumatra, Borneo, Celebes, the Moluccas or Spice Islands, the Lesser Sunda Islands, Banka and Billiton. The whole area is

Dutch East Indies.

administered by a Governor-General, while the different provinces and districts are governed by subordinate Dutch officials, who have under them a large number of petty native officials.

The total area is 730,000 square miles (about six times the size of the British Isles), and the population 51 millions. Of this number 37 millions (75 per cent.) are to be found in Java and Madura, the area of which is only 7 per cent. of that of the total colony. It is from these two densely peopled islands (727 inhabitants to the square mile) that the bulk of the exported produce comes. Sumatra has $5\frac{1}{2}$ million people on an area of 159,000 square miles (32 to the square mile); Celebes has 3 million people on 72,000 square miles (43 to the square mile); Dutch Borneo has $1\frac{1}{2}$ millions on 212,000 square miles (rather over 7 to the square mile); the Lesser Sunda Islands (Bali, Lombok, and the Timor Archipelago) have nearly $2\frac{1}{2}$ millions on 21,700 square miles (or 114 to the square mile). Thus there are enormous areas of undeveloped land, side by side with a large native population accustomed to agriculture.

The bulk of the people are of Malay race and of Mohammedan faith. They have been brought into contact with the Arab and Chinese civilizations through traders from these countries. There are about half a million Chinese in the Dutch Indies, and some tens of thousands of Arabs, these people acting as petty traders, shopkeepers and hawkers. In the little explored interiors of the large islands (Borneo, Sumatra, Celebes) there are pagan tribes practising a primitive agriculture, and in the depths of the forests a few thousands of pygmy hunters. The people of Dutch New Guinea are uncivilized pagans of Papuan race.

European residents (chiefly Dutch) number about 170,000, of whom the majority are resident in Java.

The average total foreign trade in 1919-21 was £273 millions, of which 63 per cent. was export trade. It is now about £210 millions, of which 60 per cent. represents exports. This works out at £4 per head, a figure considerably higher than that for India or Indo-China. The pre-war trade was only £98 millions. The various regulations requiring natives to labour gratuitously one day in seven on Government and private plantations, and to cultivate certain produce for export, have gradually been abolished (the last in 1914). About 5 per cent. of the exported produce is from Government estates. Private estates (European and Chinese) cover about $3\frac{1}{2}$ million acres.

All the large towns are in Java. They include Batavia (235,000 inhabitants) and Surabaya (160,000 inhabitants), both seaports with large European colonies; Surakarta (138,000 inhabitants), an almost entirely Javanese city in the interior; and Samarang (110,000), a second-class seaport. Buitenzorg, situated up in the mountains, is the hot-weather residential town for Europeans. Medan is a principal centre in Sumatra.

Position and Climate.—The East Indies lie roughly between 10° N. and 10° S. of the Equator, forming a broken land-bridge between south-eastern Asia and north-western Australia. The Equator runs through Sumatra, Borneo, Celebes and the Moluccas, while Sumatra, Java, and the Lesser Sunda Islands form a chain several degrees farther south. The temperatures on the lowlands are uniformly high all through the year, although moderated by sea-breezes, while on the highlands (which are very little known) they are uniformly moderate. The rainfall is abundant, for

Dutch East Indies.

and for their great number. Throughout the Sunda Islands there are active and extinct volcanoes, which give rise to very fertile soils; and, except for Borneo, the Indies are liable to earthquake shocks.

The combined heat and moisture ensure a dense forest growth on all the lowlands and on the lower slopes of the mountains, the plants being similar to those of Burma and Malay, and including teak, ironwood, ebony, camphor, bamboo, rattans, besides the valuable coco-nut and sago palms, and many varieties of bananas. Even in Java there are still untouched forest tracts, the home of the elephant, rhinoceros, tapir, ourang-utan and wild pig.

On the higher mountain slopes there are temperate and coniferous forests, while at still greater elevations there are grassy savannahs.

Great navigable rivers radiate from the central mountains of Borneo, and others flow down the gentle north-eastern slopes of the mountains of Sumatra. In Celebes, short, swift rivers, draining from mountain lakes, promise abundant water power.

Human and Economic Conditions.—"Planting," i.e. the development of large agricultural estates by European capitalists, is the premier industry, and is fostered and assisted by the well-equipped Government Research and Experimental Stations. In all but the settled districts, hill rice (unirrigated) and sago form the staple food-stuffs of the people. The Indies are the chief source of supply of **sago**, which is a starch food that may take on a greater importance in view of the world shortage of rice. **Rice** is grown on irrigated fields in Java and Madura, in the neighbouring densely peopled islands of Bali and Lombok, and in northern Sumatra. The configuration of the land and the abundant mountain streams make terrace cultivation common. Besides feeding the local population, the 7½ million acres sown supply some rice for export to the Dutch markets and to China, this being usually rice of high quality, poorer grades being imported in return. Other food-stuffs grown in the first instance for local consumption are **maize** and **tapioca**, i.e. cassava (each over 1 million acres), but there is now a very large export (worth £1½ million) of the latter.

On the plantations (as apart from the native farms) the most important crop is **sugar**. The total area (European, Chinese and native) is about 460,000 acres, yielding, in 1928, 2·9 million tons. This is more than half as great as the crop of Cuba, and

gives Java the second place in the world's production of (commercial) cane-sugar. The yield is exceptionally high, averaging 4·5 tons per planted acre in 1917, as against rather under 3 tons in Cuba in the same year, although the Cuban crop was an exceptionally large one.

Coffee is also a leading plantation crop in Java, in north-east Celebes, and in West Sumatra. The conditions are as in Brazil: steep, well-watered mountain slopes, from which a virgin forest has been cleared, leaving a rich

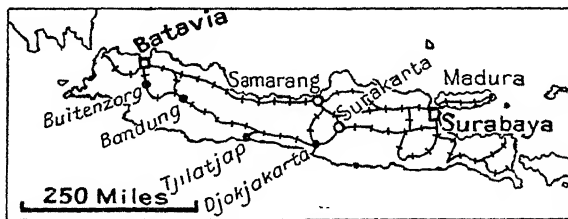


FIG. 38.—JAVA.

Dutch East Indies.

humus soil. The crop is a very fluctuating one, but the average annual yield has risen from 21,000 tons in 1910-13 to over 64,000 tons in 1927. Only a small proportion of this is of the fine "Java" quality, which suffers from disease, and the main export is of "robusta."

Cacao finds very suitable conditions in Central Java, which is very wet. In the equatorial belt violent storms that break off the heavy pods are absent, and there are many well-sheltered valleys in the island. The crop is small, averaging 1,000 tons.

Of greater commercial importance is **tobacco**, including a mediocre quality grown in Java, and a superior quality for cigars grown on estates in the Deli district of Sumatra by the Straits of Malacca. The total quantity is 100,000 tons, about one-twelfth of the American crop. Lombok also grows tobacco.

The wet hill slopes of Java are also suitable for **tea** (200,000 acres) of which the output has greatly increased. The figure for 1906 was 26 million lb., and the average for 1915-17 was 99 million lb., i.e. about one-quarter the crop of India, while that of 1928 was 154 million lb. The cultivation has extended round Deli (Sumatra), but five-sixths of the output is from Java.

Java has long supplanted Ceylon in supplying the world's demand for *cinchona* (quinine), the tree finding on the middle slopes of the mountains a climate similar to that of its original habitat in the Equatorial Andes. The 1927 crop was 27 million lb., as against a former maximum of 21 millions in 1911. Apart, however, from sugar, these old-established plantation products of the Indies have been cast into the shade by the rapidly developing **rubber** and **oil-seed** industries. The rubber plantations (covering 800,000 acres) are principally in eastern Sumatra, i.e. opposite the noted Malay plantations, and close to the Singapore market. Two-thirds are controlled by British, American and Franco-Belgian interests. There are also important native plantations in S.W. Java. The output of estate rubber in 1927 was 130,000 tons, and of rubber planted by natives 90,000 tons. This total of 220,000 tons may be compared with that of 73,000 tons in 1922 and of 3,000 tons in 1913.

As regards *vegetable oils*, the chief source is the coco-nut, it being estimated that there are over 100 million trees in the Dutch Indies. The normal yield of **copra** for export is about one-quarter million tons, largely drawn from the Outer Possessions, and there is a large crushing industry yielding oil and copra. The natives also grow considerable crops of **ground-nuts**, and minor crops of soya beans, sesame, and castor oil. In addition, the *kapok* tree is cultivated, not only for fibre, but also for seed, from which oil is extracted. Thus the total oil resources of the colony are very considerable, and with scientific cultivation are capable of great expansion. Of great interest is the establishment in Sumatra of *oil palm* plantations which may one day threaten the supremacy of the wild product of West Africa. The output in 1922 was 3,645 tons, that of 1928 was 15,000 tons, which should be doubled in three or four years. Thus the story of rubber may be repeated.

• The Government Irrigation Department is steadily extending the area served by permanent irrigation works, the water being supplied to the sugar and rice fields. The Government Forestry Department is also very active, the *teak* forests of Central and Eastern Java being scientifically

Dutch East Indies.

exploited. The ironwood forests of Borneo and Sumatra are but slightly drawn upon.

The abundant *mineral* wealth of the Indies remains largely unexploited, owing to difficulties of transport, since only in Java is there a good road and railway system, and the chief mining areas occur in the Outposts. Exception must be made of **tin**, which has been long mined on the small, and therefore easily accessible, islands of Riau, Banca and Billiton, lying to the east of Sumatra. These islands are a prolongation of the tin-bearing mountains of Malay. The output has reached 35,000 tons, about half that of the mainland peninsula. The Banca mines are worked by Government; Chinese labourers are largely employed on the mines as in the plantations. The ores are smelted at Singapore.

Petroleum has also been steadily obtained during the last ten years, the quantity in 1928 being 28½ million barrels, or rather more than 2 per cent. of the world's supply. The Dutch Indies rank seventh as a producing area. The chief oil-fields are those of central Java, of Palembang in southern Sumatra, and Langhat in the north of that island, and of Balik-Papan on the east coast of Borneo. There are also small fields in Buru and Ceram. There are several refining centres, of which that at Balik-Papan is the chief.

The third mineral of importance is **coal**, the mines behind Padang in western Sumatra, in Poelau Laoet, and behind Banjermassin in south-east Borneo, producing over 1½ million tons.

Iron and gold are also mined in Borneo, and it is expected that capital will soon be forthcoming for the development of very valuable and easily worked deposits of iron, manganese and nickel in Celebes, where hydro-electric power can be obtained for the mining and smelting plant. There are also rich copper deposits in Timor, about 50 miles from the capital and port, Koepang.

The *industries* of the Dutch Indies are chiefly concerned with the preparation for the market of the plantation produce. They include sugar and rice milling, cigarette and cigar making, oil-seed crushing, mineral oil refining. Paraffin wax and candles are made on a large scale for export at Balik-Papan. In Java, owing to the wide employment of agricultural implements, and the development of motor and rail transport, there are large numbers of foundries and engineering workshops for the execution of repairs, and the manufacture of spare parts.

Trade Relations.—A large proportion of Java sugar is sent to India, and smaller quantities to Further India, China and the Philippines. The coal is also marketed in the East, besides the mineral oil, which is in a favourable position to compete with the United States product. Formerly, the bulk of the plantation crops, besides the tin, went direct to Holland, to be redistributed to Britain and Europe through the entrepôts of Amsterdam and Rotterdam. The War checked this traffic and turned part of the stream of produce eastwards, while Sumatran plantation produce goes to the Singapore markets. The United States buys rubber, tin, copra, oil-seeds, cinchona and tea; Canada also takes tea and rubber; but these countries do not require tobacco, coffee or cacao, of which they have nearer supplies. Australia, with local sugar, does not demand this commodity, but it offers a market for coffee, tobacco, cacao, tea, mineral and vegetable oils, besides such minor tropical produce as sago, timber, rattans, pepper and spices. The latest figures show 25 per cent. of the total exports

Dutch Guiana or Surinam.

going to Singapore for re-distribution, 16 per cent. to Holland, 15 per cent. to the States, 10 per cent. to Great Britain, and 9 per cent. to India.

The colony offers a large market for manufactured goods, nearly the whole of the imports, valued at £100 millions, being of this character. Textiles are the largest item, principally cotton sheetings, shirtings, jeans, and other piece goods, besides haberdashery and apparel. The United Kingdom has the principal share in this trade, Japan only competing in the cheaper articles. Provisions, largely canned goods, biscuits and preserves, come from America and Australia. Iron and steel goods (including galvanized sheets and plates, machine and other tools, cutlery, wire and nails) and machinery come from Germany through Holland, and from the United States and Japan, but the United Kingdom might supply this market. Matches, glassware, earthenware, leather goods and paper can all be supplied by Japan, while chemicals and fertilizers come chiefly from America. A very comprehensive railway programme is planned to extend over the next ten years, so that there will be a demand for railway plant, construction material and machinery. Of the total imports, 17 per cent. come direct from Holland and 12 per cent. direct from Great Britain, while the import of 13 per cent. via Singapore is largely from these two countries but includes also dried fish from Siam and Cochin China, besides re-exports of rice.

There are already nearly 4,500 miles of railway, of which over 3,000 miles are in Java. Goods must be lightered at Batavia and Soerabaya, but there are better facilities at Tandjong Priok, six miles from the former. These two leading ports have about equal volumes of trade. Makassar in Celebes is the best harbour in the Indies, and there is also a good harbour at Sabang off north-west Sumatra, which serves as an entrepôt for the group.

General Information.—The Java Bank, under Government administration, issues paper money. The Yokohama Specie Bank, the Mercantile Bank of India, the Hong-Kong and Shanghai Banking Corporation, and the Taiwan (Formosa) Bank, besides Dutch and American banks, have branches at Batavia and Soerabaya. The only legal coins, weights and measures are those of the Netherlands, where the money unit is the guilder, of which normally 12 guilders = £1. The metric system is employed, but a measure in common use is the *pikol* (picul), equal to 133½ lb. avoirdupois. Mails reach Batavia in 26–27 days. There is a British Consul-General at Batavia, and Consular representatives at Soerabaya and Samarang in Java, at Makassar in south Celebes, at Medan (near Deli) and Padang in Sumatra, and at Balikpapan in Borneo.

DUTCH GUIANA OR SURINAM

Area and Population.—Surinam is a Crown Colony of the Netherlands, under the administration of a Governor, forming part of the Dutch West Indies. Its area is 54,000 square miles (about 1½ times that of Scotland), and its population 146,000 (inclusive of uncivilized forest Indians). Nearly one-third of the inhabitants (45,000) live in the capital and chief port Paramaribo, at the mouth of the river Surinam. The total

Dutch Guiana or Surinam.

foreign trade is only about £1½ millions annually, and the revenue raised locally has to be supplemented from Holland. The foreign trade of the neighbouring colony of British Guiana is six times as great.¹

Position, Climate and General Physical Conditions.

—Surinam lies on the north-east coast of South America, facing the North Atlantic Ocean, and extends from latitude 2° N. to latitude 6° N. Hence the climate is uniformly hot throughout the year, but in the interior the heat is tempered by the elevation of the land. Heavy tropical rains fall on the coastal belt during the greater part of the year, but the highlands are somewhat drier, and have the principal rains in the summer months. The river Surinam, and the two boundary streams, the Corentyne and Masoni (separating Dutch from British and French Guiana respectively) flow northward from highlands in the south, which are clothed with well-wooded savannah; they then pass through the dense forests of the coastal plain, and enter the sea through great mangrove swamps.

Human and Economic Conditions.—The population includes, besides Dutch colonists, negro, aboriginal and Portuguese elements, both pure and mixed. There are also about 50,000 East Indian coolies, forming an important labour supply. Their numbers are, however, quite inadequate for the development of the colony, and in the absence of roads and railways the plantations are limited to belts near the coast and the lower navigable reaches of the rivers and creeks, communication being by water.

Sugar (14,000 tons) is the staple plantation product, and together with rum and molasses forms the most valuable export. The climate is perfectly suited also to *cacao*, to *coffee* and to *bananas*, and the output of all of these tends to increase (*cacao* about 250 tons, *coffee* 1,500 tons). The shortage of foreign supplies during the War led to an increased cultivation of *maize* and *rice*, which had previously been imported via Amsterdam.

The forests yield *balata*, and in the rivers there is alluvial *gold*, the collection of both being carried on in a small way by independent negroes and Indians. There are great *timber* resources undeveloped, the highland savannahs would support vast herds of cattle, the coast belt would grow coco-nuts; the highlands are also rich in minerals: labour, communications and capital are wanting, but concessions have been granted to an American syndicate. The labour problem is very serious. Chinese coolies will not become colonists, Japanese are unwelcome, British Indians can only be introduced under stringent restrictions, so that Javanese, or possibly British West Indians, alone remain as a possible supply.

Trade Relations.—About half the trade of the colony goes through Demerara (British Guiana), which has better connection with London and New York. In the latter city, sugar and cacao find a ready market, while *balata* is sent to London, *coffee* and *bananas* to Amsterdam. The imports include, besides all classes of manufactured goods from the United States and Europe, a considerable quantity of food-stuffs—preserved meat and milk, fish, beverages—which cannot be produced locally. These come mainly from North America.

General Information.—The coinage, weights and measures

¹ For Map see British Guiana.

Ecuador.

are those of Holland, i.e. there is a gold standard, and the metric system is employed. Money is reckoned in *guilders*, of which normally 12 g. = £1. The Westminster Bank is agent for the Surinam Bank. Mails take 17-24 days in transit.

EAST AFRICA, BRITISH

See *British East Africa*, p. 70.

EAST AFRICA, PORTUGUESE

See *Portuguese East Africa*, p. 366.

ECUADOR

Area and Population.—The Republic of Ecuador has an area of 116,000 square miles approximately (the boundary with Peru is still in dispute) and a population of rather under 2 millions. The foreign trade reached about £5 millions before the War, but production and export fell off considerably, and the figure for 1918 was only £4½ millions, little more than £2 a head as compared to over £6 a head in the neighbouring Republic of Peru. The present figure is from £5-6 millions, according to the price and harvest of cacao. The majority of the inhabitants (1½ million) are of pure Indian blood, *Mestizos* numbering nearly half a million, and persons of pure European blood making up the remainder. The principal commercial centre is the seaport of Guayaquil, with 100,000 inhabitants. The capital city, Quito, built at an elevation of 9,000 ft., has 80,000 inhabitants, Cuenca 30,000, Riobamba 18,000, Ambato, Loja, Latacunga, each about 10,000. The Galapagos Islands with an Indian population of 400, form a colony of Ecuador.

Position and General Physical Conditions.—Ecuador lies on the west coast of South America, its capital city being almost on the Equator. It extends from 5° S. to 1½° N., and hence the climate of the lowlands is of the equatorial type, uniformly hot and humid. The uplands are cooler and drier, the characteristic feature being uniformity of temperature through the year, so that Quito is said to enjoy a perpetual spring.

Physically the country falls into three well-marked divisions; the coastal belt, diversified by low hills, is drained by the navigable rivers Daule and Guayas, which flow from north to south into the Gulf of Guayaquil; the Andean belt consists of two lofty chains enclosing a long narrow elevated cool plateau, on which stand all the principal towns of the Republic except Guayaquil. Volcanic peaks, among them Chimborazo, Cotopaxi, and Antisana, 19,000 to 20,000 ft. high, are found in this belt; the third (Oriental) region is cut off by the lofty Andes from the sea-board, and hence is inaccessible and undeveloped, it forms part of the great plain of the Amazon, and is clothed with virgin tropical forest, as are the lower slopes of the Andes both east and west, and the west coastal lowlands. At higher levels there are sub-tropical

Ecuador.

forests containing cinchona trees, and above these are temperate forests, while in the high valleys and on the plateau there is abundance of natural pasture, with hardy herbs and shrubs. Numerous streams, flowing both towards the Pacific and towards the Atlantic, trench the highlands with deep and often very fertile valleys.

Human and Economic Conditions.—The inhabitants of the mountain and plateau regions keep *cattle*, and cultivate potatoes, beans, temperate cereals (*wheat, barley*) and vegetables for local use. The chief

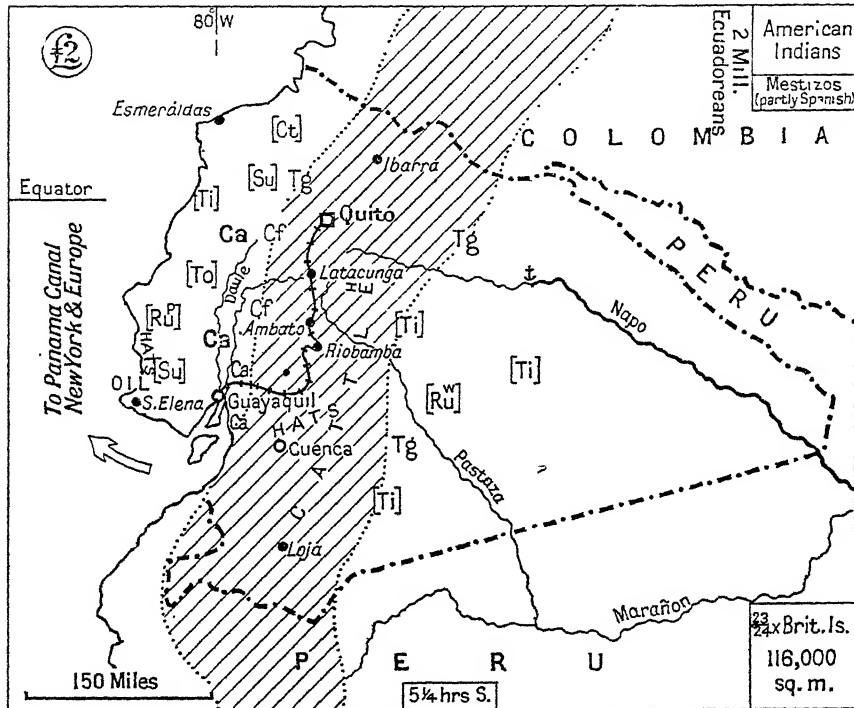


FIG. 39. ECUADOR.

production for export purposes is **cacao**, which is grown in the coastal belt, where the climate, soil and shade conditions and the absence of strong winds ensure success. The output is from 50,000 to 60,000 tons, and the crop is normally marketed in Havre, whence it is partly redistributed to Germany and elsewhere. In 1919 an unusually large proportion came direct to the United Kingdom. Many of the plantations are owned by Germans, and some by British planters. The cacao slump of 1920-21 led to general financial depression, while "witchbroom" disease now threatens the crop. The secondary products are *coffee* from the mountain slopes, *ivory nuts* (*tagua*), obtained from a palm growing widely in the wooded areas, and exported to Germany for making buttons, *panama hats* (from the locally-grown toquilla), and *hides*, which are worth severally from £125,000 to

Ecuador.

£250,000 annually. *Rubber* has been planted, although with indifferent success, since the output of wild rubber has fallen off. **Tobacco** is grown in considerable quantities for local use, besides some **sugar** and **cotton**, in the coast region and the northern provinces. The cotton is insufficient to supply the local mills, which manufacture a coarse cloth for native wear, and there is some import from Peru. Other manufactures are of chocolate, tobacco, refined sugar, biscuits, matches, and rough boots and shoes.

The forests have valuable resources in the shape of timber, dyewoods and cinchona, but they remain undeveloped, as does the probably very considerable mineral wealth (gold, silver) of the Republic. This is largely due to the absence of means of communication. Some **petroleum** is obtained from Sta. Elena, on the north shore of the Gulf of Guayaquil.

Trade Relations.—The only trunk railway in Ecuador runs from Guayaquil up to the plateau summit, and thence northwards through Riobamba to Quito. Branch lines, and the navigable rivers Daule and Guayas serve the coastal plantation regions, but on the plateau the railway has no feeders, while the roads are often impassable. A railway under construction from Esmeraldas to Quito will open up a large area of virgin forest. About 60 per cent. of the imports (chiefly textiles and clothing, iron goods and foodstuffs) came in 1918 from the United States, and 20 per cent. from the United Kingdom, while previous to the War the United States supplied only 25 per cent., Germany 20 per cent., and France 6 per cent., the share of the United Kingdom being about 27 per cent. In 1928 the proportions were as follows: United States 54 per cent., United Kingdom 16½ per cent., Germany 9½ per cent., and Belgium 4½ per cent. Light construction materials, motor-launches, farm implements, machinery, small tractors and engines, fencing and other necessities for a scattered farming community are likely to be in demand, as well as luxury articles and proprietary goods in Guayaquil and Quito. The fact that yellow fever was endemic in the port of Guayaquil was a considerable handicap to the trade of Ecuador, entailing as it did special quarantine regulations, and hence the announcement that it has since September, 1920, been brought under control and practically stamped out, is of importance. Entry to the port is hampered by a bar.

General Information.—The unit of currency is the gold *sucre*, of which 24·3 = £1. The Central Bank at Quito alone issues currency. The chief foreign banking establishment at Guayaquil is the Anglo-South American Bank. The Banco del Ecuador has agencies in London.

The metric system of weights and measures is legally in use, but actually the old Spanish weights and measures (*libra* = 1·014 lb. av., *quintal* = 100 libras) are employed. The language spoken is Spanish, and the prevailing religion (though not established) is Roman Catholic. There is cable connection from Sta. Elena to the other western Republics of South America, and indirectly to North America and thence to Europe. A direct cable to Great Britain is lacking. Mails reach Guayaquil in 20–27 days. A British Consul-General is stationed at Quito, and a Consul at Guayaquil. The Commercial Secretary attached to the British Legation at Lima (Peru) acts also for Ecuador.

Egypt.

EGYPT

Area and Population.—Egypt is an independent Kingdom since 1921, and is ruled by a King with the assistance of a native Ministry, the British Government having withdrawn from the Protectorate. The avowed policy of Great Britain was to develop the system of self-government in Egypt, and to give to the Egyptians an increasing measure of control in national affairs. The area of Egypt is 350,000 square miles, of which, however, the settled country comprises barely one-thirtieth. The total population is 14 millions, and has increased by about $1\frac{1}{2}$ millions in each of the decades 1897–1907, 1907–1917, and 1917–27. This population is located in an area only about one-tenth the size of the British Isles, where the density is consequently as great as 1,000 persons per square mile. The average total trade in the years 1918–1920 (including goods in transit) amounted to £138 millions, or about £11 per head, the imports being slightly below the exports. The figure was more than double that for 1914. Latterly (1920–29) the trade has averaged £97 millions, or £7 a head. The population of the large towns has recently shown a great increase. Cairo, the capital, has a million inhabitants. Alexandria, the principal seaport, has half a million. Port Said, at the mouth of the Suez Canal, has 100,000. Among towns of the second rank Tanta, Zagazig, Mansura and Damanhûr, all in Lower Egypt (the delta), have over 50,000, while Asyût in Upper Egypt has 57,000 inhabitants.

The bulk of the people are Moslems, and there is an important Mosque and University of Islam at Cairo; there are besides over three-quarters of a million native Christians who are members of the ancient Coptic Church, and about 150,000 Christians belonging to various Western Churches (chiefly Roman Catholic). The vast majority of the peasantry are illiterate, but there are about a quarter of a million children receiving education, and there are some 18,000 students at various Higher Colleges. The Egyptian peasants are Hamites, a muscular, brown-skinned race, but there is much Arab and negro admixture, while the trading and ruling classes are Turks, Arabs, Jews and Levantines.

Position and Climate.—Egypt lies in North-East Africa, between latitudes 22° N. and $31\frac{1}{2}^{\circ}$ N., i.e. it is almost entirely in the warm temperate zone, and corresponds in latitude to the Ganges Basin. Whereas, however, the latter opens southwards to a tropical sea and has tropical monsoon rains, Egypt has a great land mass to the south and opens northwards to the temperate Mediterranean Sea. Hence it is shut off from the tropical rain belt, and only in winter-time does a part of it—Lower Egypt—come within the sphere of the temperate rain-belt associated with the westerly wind current. Hence two climate regions can be distinguished—Lower Egypt with light winter rains, a chilly, damp, mid-winter season, a warm, pleasant, spring and autumn, and a very hot, dry summer; Upper Egypt (above the delta), a rainless region, with a warm, sunny winter and an intensely hot summer. In Lower Egypt the rainfall is supplemented by heavy mists and dews, which to a less extent occur in Upper Egypt. The *khamisin*, a very hot, dry, dust-laden wind from the desert, blows in late spring.

General Physical Conditions.—The essential feature of

Egypt.

torrents which flow during the rare, but violent, rainstorms. Of a similar character is the Desert of El Tih in the Sinai peninsula, separated from Egypt proper by the deep cleft of the Gulf of Suez and by the depression utilized for the Suez Canal.

Human and Economic Conditions.—Egypt is essentially an agricultural region, but horned cattle (including buffaloes) are reared for draught purposes, and number $1\frac{1}{2}$ millions. There are also large numbers of donkeys and camels used for transport. Over 60 per cent. of the population are cultivators, but small holdings are the rule, over 63 per cent. of the farms being under an acre, while 28 per cent. are between one and five acres. The farms of Lower Egypt, the Fayum, and Upper Egypt, as far south as Deirut (lat. $27^{\circ} 40'$), are under perennial irrigation, and hence double, or even treble, cropping (winter and summer) is possible. South of Deirut about $\frac{1}{2}$ million acres have been converted to perennial irrigation in the last 10 years, but the remainder is under basin irrigation, i.e. submerged at high Nile (late summer), and hence yields only single crops. The great dam at Assuan, below the first cataract, renders the occurrence of a low Nile a far less economic danger than hitherto, since the deficiency can be made up from this enormous reservoir of water. Below Assuan the chief works are the barrages of Esneh, Assiut and Zifta. The Gebel Aulia dam, which it is proposed to build on the White Nile south of Khartum, will store nearly twice as much water as that at Assuan. It will bring Upper Egypt under perennial cultivation, and will also reduce the danger resulting from an unusually high or a prolonged high Nile, which may involve the slipping of the banks and disastrous floods. The inhabitants are liable to be called out to guard and repair the banks in such an emergency.

The principal, in fact almost the sole, economic crop of Egypt is **cotton**, the area planted varying from 1.5 to 1.9 million acres. The yield is between 1,200,000 and 1,600,000 bales of 400 lb., the *Sakel* variety representing over 70 per cent. of the total, and the *Ashmuni* over 20 per cent. The Government devotes much attention to the improvement of varieties and to the distribution of good seed on easy terms to the smaller cultivators. The fact that cotton, cotton seed and cotton cake accounted for 93 per cent. of the exports in 1913, and for 90 per cent. in 1920, shows how dangerously dependent Egypt is upon this single staple. The figure is still over 80 per cent., although the export of grain and pulse has become normal. An area sometimes equal to and sometimes exceeding that under cotton is sown with **maize**, which forms a staple article of diet. Almost equally large is the area under **wheat**, but some flour is also imported, for the yield of wheat per acre is very small. Cereal crops of secondary importance (sown on under half a million acres each) are *barley*, *millet* and *rice*, the latter confined to Lower Egypt. The *sugar* cane is cultivated on 50,000 acres (over 50 per cent. in Kenh Province), and the quantity produced reached over 100,000 tons in 1918, and 105,000 tons in 1928. Some sugar from the East Indies also reaches the Egyptian refineries, and this import is roughly balanced by an export of refined sugar. Previous to the War there was a considerable import of Austrian beet sugar. Other crops are clover, cucumbers, legumes (especially lentils), onions and potatoes, of which all but the first named are also articles of export. As in all countries where much grain is grown, fowls are very numerous, and there is an export of **eggs**, that to Great Britain alone reaching a value of over £1 million (on arrival) in 1917, but

Egypt.

with the reappearance of more normal conditions this figure has fallen to £290,000.

Under conditions of perennial irrigation but little silt is deposited on the fields, while the repeated cropping greatly impoverishes the soil, hence the need for manure is increasing. This came formerly from Belgium, but Chile nitrates are now largely imported, and Egypt has also considerable beds of phosphate rock, east of the Nile, although these are not of such good quality as those of Tunis. The output is over $\frac{1}{4}$ million tons.

The mineral wealth of Egypt is not great. Two small gold mines closed down owing to high operating costs during the War, but **manganese** ore has been worked in the Sinai peninsula since 1913, and the output in 1927 was 153,000 tons. Of greatest importance are the **oil**-fields, which lie along the western border of the Gulf of Suez. The oil is shipped by tank steamer to the refineries at Suez, which have latterly also dealt with crude oils from the East Indies. The bulk of the output is of fuel oil, in which Egypt is now more than self-supplying, so that Suez has become an important bunkering station, and tanks are also erected at Port Said. With regard to petrol and kerosene, the local supplies are inadequate, and of these there is a considerable import, valued at £3 $\frac{1}{2}$ millions in 1927. The maximum output from the Suez refineries was 289,000 tons of oil in 1918, equivalent to about 2 million barrels. The 1927 output was 1 $\frac{1}{2}$ million barrels.

The only manufacture of importance in Egypt is that of *cigarettes* in Cairo. For this industry tobacco is obtained from Greece, Turkey, China and Syria, the quantity being some 15 million lb. in 1927. The export of cigarettes in 1927 was $\frac{1}{2}$ million lb., so that it is evident that there is a large local consumption. There are some thousands of native cotton and silk hand-loomers in Cairo and Damietta.

Trade Relations.—The trade of Egypt, partly owing to its position on the highway to India, partly owing to the close political relationships of the past between the two countries, but also because the one is a major producer and the other a major consumer, of long-staple cotton, is very largely with Great Britain. British textiles hold the first place in the Egyptian market, although there is competition from Italy and France, and to a small extent from Japan. In metal goods Great Britain also takes a leading place, but here there is strong competition from France, Germany and Belgium. Great Britain and France alike supply chemicals and drugs, while there is a large import of nitrates from Chile. Turkey supplies the greater part of the large import of tobacco, Rumania and Sweden supply timber, while Rumania and Russia supply petroleum. Czechoslovakia supplies small consignments of a very large range of manufactured goods.

The staple export, cotton, naturally goes to the cotton manufacturing countries in proportions reflecting the relative importance of the spinning of the finer counts in each. Great Britain is far ahead of all competitors, the United States rank second, while France, Soviet Russia, Italy, Germany, Japan, Switzerland and Czechoslovakia are purchasers in the order named. Cotton-seed oil and cake, besides legumes, pulses and eggs come also to Great Britain.

The bulk of Egyptian trade passes through Alexandria. The export trade to the Sudan is worth about £1 million, and consists in textiles, cigarettes and sugar. The import trade is little more than half so valuable, and is in cattle, sesame and ground-nuts.

Eritrea.

British ships carry more than 50 per cent. of Egyptian trade, while 20 per cent. of the arrivals and departures from Alexandria are under the Italian flag. Small Greek vessels engage in the Levantine trade. Of the 17½ millions tonnage passing through the Suez Canal in 1928, 57 per cent. was British, 10 per cent. Dutch, 10 per cent. German, 6 per cent. French, 5 per cent. Italian, and 3 per cent. Japanese. During the last 10 years there has been a decrease of Japanese tonnage, and a notable increase of German and Italian.

Including 720 miles of agricultural light railways, there are 3,000 miles of railways in Egypt, mainly State owned, on which there is a heavy traffic. The Nile is also an important route-way, with a regular service of Government steamers, besides numerous native craft.

General Information.—The metric system is commonly employed in Government reports relating to Egypt. The following units are also in general use: 1 feddan = 1·038 acres; 1 quantar (or 100 rotls or 36 okes) = 99·05 lb.; 1 ardeb = 43½ gallons or 5·4 bushels. The unit of currency is the gold Egyptian pound (£E) of 100 piastres, equivalent to £1 0s. 6½d. in pounds sterling. The piastre (P.T.) is worth 2½d. English sovereigns are legal tender at the rate of 97½ piastres. The Indian rupee is also temporarily legal tender. There are besides in circulation bank-notes of the National Bank of Egypt, and Government currency notes. Besides the National Bank, there is an Agricultural Bank, making loans to the fellahin, while the ordinary exchange banks include branches of Barclays Bank, the Ottoman Bank, and the leading French, Italian, Greek, Belgian and German banks. Mails reach Egypt from London in 6–8 days. The language most commonly spoken is Arabic, but English is taught at all institutions for Higher Education. There is a British Consul-General at Alexandria, Consuls at Cairo and Port Said, a Vice-Consul at Suez, and also a British Commercial Secretary at Cairo. Cairo lies on the new air-route to India.

EGYPTIAN SUDAN

See **Anglo-Egyptian Sudan**, p. 12.

ELLICE, GILBERT AND, ISLANDS

See **Gilbert and Ellice Islands**, p. 213.

ENGLAND

See **Great Britain**, p. 217.

ERITREA

Area and Population.—The Italian Colony of Eritrea is administered by a Governor. Its total area is nearly 46,000 square miles, and population 400,000. Apart from the military, there are only five

Estonia.

thousand Europeans, chiefly at Asmara, the capital, and Massawah, the chief seaport. The trade is increasing, and already amounts to nearly £3 millions, imports being considerably in excess of exports, as developments are in progress.¹

Position and General Conditions.—Eritrea lies along the south-western shore of the Red Sea, from latitude 18° N. to latitude 12½° N. (at the straits of Bab-el-Mandeb). It is bounded inland by the Egyptian Sudan and Abyssinia, and includes also the Dahlak Archipelago. The coast of Eritrea is one of the hottest places in the world, and as it lies in the lee of the Abyssinian highlands it is also very dry. A part of these highlands are included in the colony, and the centre of administration is placed inland at Asmara, where the elevation renders the climate more tolerable. The eastern and northern slopes of the highlands are clothed with pasture, and the inhabitants are pastoral nomads, rearing camels, cattle, sheep and goats, whose **skins** and **hides** are articles of commerce. On the summits of the highlands there is a considerable rainfall, and in summer the rivers bring down abundant water for irrigation purposes, and hence such crops as *cotton* can be grown. The well-watered uplands are forested, and **palm-nuts**, similar to the tagua or ivory nuts of South America, are collected for export. There are **pearl** fisheries in the Red Sea, potash deposits on the Abyssinian frontier, and gold mines near Asmara. Salt is exported and a little potash, which is brought by light railway to the specially constructed port of Mersa Fatimari.

The railway from Massawah to Asmara has been extended inland. Trade is chiefly with Italy, and Massawah serves also as the principal port for Northern Abyssinia.

General Information.—The unit of currency is the Italian *lire*. Maria Theresa dollars are also in circulation. The Banca d'Italia has branches at Massawah and Asmara. There is wireless connection with Italy, and with Italian Somaliland from Massawah.

ESTONIA

Area and Population.—The Republic of Estonia, including the islands of Ösel and Dagö, has an area of about 18,000 square miles (rather less than one-sixth the British Isles) and a population of 1½ millions, which is almost entirely (87 per cent.) Estonian, so that the racial difficulties common to so many of the new States are here absent. The Estonians are a people allied racially to the Finns, i.e. they come of Mongolian stock and are quite distinct from the Slavs, Teutons and Letts. Like the Finns and Scandinavians, the Estonians are well educated, the proportion of illiterates being very low, and this fact should have a beneficial effect on the prosperity of the country now that it is independent. The former Slav University of Dorpat, now Tartu, has been reopened as an Estonian centre of learning. The capital and chief seaport is Reval (Tallinn) on the Gulf of Finland, with over 120,000 inhabitants, i.e. about 10 per cent. of the total population. Its importance is more than local, since it was a leading seaport of North Russia, a fact that suggests that the trade of the new Republic

¹ For Map see Abyssinia, p. 1.



Falkland Islands.

coal and coke, and Germany supplies dyes, chemicals and chemical manures. Sweden appears as a third rival, as she is in a position to supply such important classes of goods as electrical accessories, dairying machinery and metals. Trade with Russia is about 6 per cent. of the total each way. Reval (Tallin) is practically the only port of entry to be considered, although it is ice-blocked in winter, and is then partly relieved by Baltic Port, which lies farther west, and hence is kept open longer. The latter has, however, very restricted accommodation, and the same is true of Pernau on the Gulf of Riga.

General Information.—The unit of currency is the Estonian *kroon* (Ekr.), which has the same value as the Swedish gold *krona*, of a par value 18·159 to the £ sterling. Estonia has entered into fiscal union with Latvia. The *pood* of 36 lb. is a measure of weight in common use, but the metric system is legally adopted. The Estonian and Finnish paper marks make up the bulk of the present currency. The Bank of Estonia was established in 1919. Mails reach Tallinn in 3½ days, or by air in 1½ days. There is a British Consul-General at this post. Estonia is a member of the League of Nations.

ETHIOPIA

See *Abyssinia*, p. 1.

FALKLAND ISLANDS

Area and Population.—The Falkland Islands form a Crown Colony administered by a Governor, and cover an area of 6,500 square miles, or with the Dependency of South Georgia, 7,500 square miles (about the size of Wales). Other Dependencies are the uninhabited Sandwich Islands, South Shetlands and South Orkneys and Graham's Land, all lying in the Southern Ocean. The chief town and seaport, Port Stanley, standing on the east coast of East Falkland, has under a thousand inhabitants. It is the only British coaling station on the Cape Horn route between South Africa and New Zealand. The total population of the islands is only 3,500, and in relation to this number the foreign trade is great, averaging about £5 millions, of which £4 millions represent exports.¹

Position, Climate and General Physical Conditions.

—The Falklands lie 300 miles east of Magellan Straits, in the track of the stormy westerly winds, their latitude being 52° S. (the distance from the Equator of Southern Ireland). The climate is not unlike that of the Hebrides, mild and rainy in summer, bleak and stormy, but not excessively cold, in winter. The exposed situation prevents tree-growth, and the islands are clothed with natural pasture. The warm winds and ocean currents keep the shores free from ice, but South Georgia and the Sandwich Group lie in waters across which the gigantic Antarctic icebergs drift in spring, while the South Shetlands, South Orkneys and Graham's Land are surrounded by pack-ice for a greater or less period of the year.

Human and Economic Conditions.—The inhabitants of the Falkland Islands and of the whaling settlement on South Georgia are

¹ For Map see Argentina.

Faroe Islands.

mainly of British descent. The staple industry of the islanders is **sheep-rearing**, so that they live on widely scattered farms, necessitating the employment of itinerant school-teachers. Of late years, however, the value of the products of the **whaling** industry (which is in Norwegian hands) has outstripped that of the pastoral work. In the open waters round South Georgia whaling goes on all the year round; on South Shetlands (latitude 62° S.) there is a six months' season (November–April), while on the South Orkneys the waters are only ice-free for shorter periods. The value of the catch has reached nearly £4 millions, and there is also a small seal-fishery (value £20,000 to £30,000).

There are no manufacturing industries in the Falklands, and many of the more enterprising islanders have emigrated to the sheep lands of Chile and Argentina on the opposite mainland.

Trade Relations.—The bulk of the wool, hides, and tallow, valued at about £ $\frac{1}{4}$ million, besides part of the whale produce, is exported to the United Kingdom, which maintains regular sailings to Port Stanley. In return, British manufactured goods of all classes, besides bunker coal (peat is used for domestic purposes), are imported, but food-stuffs, such as grain, sugar, coffee, cocoa, and other groceries, of which there is no home supply, are obtained mainly from South America. Sheep for breeding purposes are sent to the mainland pastoral region.

General Information.—The currency, weights and measures are the same as in Great Britain. There is no Bank on the islands. The English mails take four weeks or more in transit. There is cable and wireless communication with Monte Video.

FAROE ISLANDS

General Conditions.—The Faroe or Sheep Islands are a group belonging to Denmark (of which they rank as a county), and lie in the North Sea about 200 miles north-west of the Shetlands. The group consists of a large number of rocky islands with deeply indented coasts, Strömö and Syderö being the chief. They cover 540 square miles, and support a population of 20,000. The climate is bleak and stormy, and the islands are treeless. The principal crops are *hay* and *potatoes*, and the chief domestic animals are *ponies* and *sheep*. The wool of the latter is woven into homespun or is exported. A small quantity of hand-knitted goods is also exported. The majority of adult males are, however, fishermen or sailors, and dried fish (principally **cod**) and fish oil are leading products. There is also some *whaling*, and some 2,000 tons of fertilizer from whale carcasses are exported. The islands stand on a submarine ridge which forms an important fishing-ground, visited also by British and other fleets. Innumerable sea-birds supply *feathers*, *down*, and eggs. Most of the necessities of life, including breadstuffs, drapery, hardware and timber, are imported via Copenhagen or Leith. The British Bank of Northern Commerce does business in the Faroes. The money, weights and measures are as in Denmark, and the Danish language is spoken. Mails go by Danish packets at irregular intervals. There is a British Consul at Thorshavn on Strömö, which is the chief harbour and seat of government.

FERNANDO PO, SPANISH GUINEA AND RIO DE ORO

Area, Population and General Conditions.—The Spanish Colony and Protectorate of Rio de Oro has an area of 109,000 square miles and a population of under 500, it lies on the western margin of the Sahara Desert, to the South of Morocco, and is of no commercial importance. Fernando Po, with Annobon, Corisco, Great Elobey and Little Elobey, are a group of volcanic islands in the Gulf of Guinea, covering 800 square miles and having a population of 20,000, including about 300 Europeans. The capital and seaport is Santa Isabel, on the north coast of Fernando Po, opposite Victoria, in Cameroons Territory. Lying within 4° of the Equator, the islands are uniformly hot and moist, while the soil is exceedingly fertile. Hence there is a luxuriant growth of tropical vegetation, and such plantation products as *cacao* and coffee do well. Spanish Guinea (Rio Muni), on the mainland, covers nearly 10,000 square miles, and has a negro population of 200,000, besides about 130 white traders. The country is typically equatorial, with very hot, unhealthy coastal lowlands, clothed with dense forest, and somewhat more open country at higher elevations. Forest products, such as wild *rubber*, *wax*, and *palm oil* are collected. The trade of these Colonies is with Spain, via Santa Isabel, and amounts to barely £½ million, the imports including apparel and provisions for the Europeans, besides spirits, cheap cottons, and fancy articles for native trade. The Governor-General of the Colonies resides at Santa Isabel. Currency, weights and measures are as in Spain, and the Bank of British West Africa has a branch at Santa Isabel.

Fiji

Area and Population.—The Colony of Fiji is administered by a Governor, who is also High Commissioner and Consul-General for the Western Pacific. Fiji consists of over 200 islands (many uninhabited), of which Viti Levu and Vanua Levu are the largest. It covers an area of just over 7,000 square miles (cf. Hawaii, 6,500 square miles), and has a population of 173,000 (cf. Hawaii, 250,000). Of this total 55 per cent. are Fijians, 37 per cent. Indians, the remaining 8 per cent. including 4,500 Europeans, some thousands of Polynesians from other groups and a few hundred Chinese. The Europeans include over 100 missionaries and teachers working among the natives. Over one-third of the European population is found in the capital, Suva. The population is increasing, the surplus of births over deaths in 1917 being over 2,000, but in 1918 the Fijians suffered heavily through the influenza epidemic.

The density of population is under twenty-four to the square mile, and there is abundance of land awaiting development. Trade has greatly increased in value during the last decade, averaging £3½ millions in 1918–27. Of the total, £2 millions represented exports. This works out at £20 a head, a figure which might easily be surpassed, as shown by comparison with other tropical dependencies: American Hawaii, £200; Malaya, £76;

Fiji.

British Guiana, £20. Hawaii has, however, a much larger proportion of efficient labourers, including nearly 50 per cent. Japanese, whereas the indigenous Polynesian peoples contribute comparatively little to the prosperity of their respective countries. So far no substitute has been found for the indenture system, which has been discontinued in Fiji. Hence the labour problem is serious.

General Physical Conditions.—The Fiji Islands lie between parallels 15° and 20° S., and are mountainous, being mainly of volcanic origin. Hence the soil is very fertile, while the climate is excellent. Malaria is absent, as in all remote oceanic islands. The temperature is uniformly high, without being excessive, while the south-east trade winds bring sufficient rainfall to ensure a luxuriant tropical vegetation.

Human and Economic Conditions.—The Fijians cultivate yams, sweet potatoes, bread-fruit, coco-nuts and bananas for their own use, besides rearing pigs, poultry, cattle and goats. They sell their surplus *copra* and *bananas* to European and Oriental traders, buying in return such articles as cotton singlets, chemises and towels, knives, tools and kerosene, but owing to their simple standard of life there is little inducement for them to engage in more productive work either on their own holdings or on the plantations.

The staple industry of Fiji is **sugar** production, labour being supplied by the Indians and other immigrants. During the period of inflated prices the area increased by 50 per cent. to 68,500 acres, producing approximately 100,000 tons of sugar—one-sixth the output of Hawaii. The area now approximates to 50,000 acres, and the output to 75,000 tons. In addition to the large European plantations, sugar is grown on many small holdings taken up by Indians, who settle in the country after their indentures have expired. The Colonial Sugar Refining Company, an Australian concern, has large interests in Fijian sugar.

Second in importance to the sugar estates are the **coco-nut** plantations, covering 48,000 acres (an increase of 50 per cent. since 1912) with approximately 2,500,000 trees. The trees come into regular bearing in about nine years, and as cattle are grazed on the plantations to keep them clear of weeds, the number of *cattle* has also increased to over 50,000.

Shipping difficulties and high prices led to an increase in the locally grown supplies of food-stuffs for the labourers, notably *rice*, beans, yams and dhal, but the islands are not yet self-sufficing in this respect.

The undeveloped potentialities of Fiji are indicated by the success of the few existing plantations of *rubber*, sea-island *cotton*, and sisal hemp. The most recent line of development has been the organization of the *fruit* industry, especially *bananas* and *pine-apples*, for which New Zealand and Canada offer a market, heavy import duties keeping them out of Australia, to which they were at first consigned.

The *industries* are concerned with the working up of the plantation products—thus there are sugar-mills, rice-mills, soap and fibre mills to deal with coco-nuts and coir, besides saw-mills and boat-building yards, since inter-communication is necessarily largely by small sailing vessels and the Fijians are traditionally skilful boat-builders, sailors and fishermen.

The great success of the oil-crushing mills of the Philippines suggests that a coco-nut oil industry might with advantage be developed in Fiji,

Finland.

since in addition to the local supplies of copra there are large quantities available from neighbouring island groups, Samoa, Tonga, New Hebrides, etc.

Trade Relations.—Practically all the trade of Fiji is carried on through the chief port, Suva, which stands on the southern shore of Viti Levu. Suva is a coaling station, with wharfage for the largest vessels, and is a regular port of call for vessels sailing between western North America (Vancouver and San Francisco) and Australasia (Auckland and Sydney). It serves to some extent as an entrepôt for neighbouring groups. Levuka and Lautoka are secondary ports of entry.

The sugar output, worth over £1 million, at one time found a market in Australia, but this is no longer the case. During the last ten years New Zealand and Canada have been the leading purchasers, and in 1927 Canada took two-thirds of the total. Of the copra export, worth about £½ million, a large proportion goes to Hamburg and Amsterdam. The United Kingdom takes only 6 per cent. of the exports.

The import trade is more widely distributed, since it includes various food-stuffs and provisions both for the coolie and European populations, besides drapery, hardware, machinery, cigarettes and tobacco and oil. Australia supplies about 50 per cent., including biscuits, flour and breadstuffs, meat and timber, besides some re-exported goods of British manufacture, e.g. drapery and hardware. New Zealand also supplies food-stuffs, including butter and cheese. Goods from the United States make up 8 per cent. of the total, including kerosene and petrol, tobacco and cigarettes, besides automobiles, agricultural machinery, sewing machines and typewriters. Canada and Australia also supply some agricultural machinery, but the United Kingdom holds the first place in supplying sugar-making plant, drapery, hardware, galvanized iron and similar manufactured articles. Japan has obtained a foothold, especially for cottons and cheap domestic wares formerly supplied by German traders, but this competition is not at all serious. Over 70 per cent. of the shipping entered and cleared in 1927 was British.

General Information.—The Banks of New South Wales and of New Zealand have branches at Suva. The money, weights and measures are those of Great Britain. Mails reach Fiji from London via Auckland in about seven weeks, and via Vancouver in one month. There is cable communication with New Zealand, Australia and Canada, besides wireless installations. There is an Imperial Trade Correspondent at Suva.

FINLAND

Area and Population.—Finland has been a Republic since 1919. The total area of the country is 132,600 square miles (rather larger than the British Isles), and the population is 3½ millions: the numbers increase very slowly, for the birth-rate is low. The pre-war foreign trade was about £33½ millions, or £10 a head, while the figure for 1919 was £126 millions, if the Finnish mark was taken at par, but actually the value was £32 millions. The imports are normally in excess of the exports, and in 1919 the proportion was as three to one, the discrepancy being increased by the adverse exchange. During 1920, however, conditions improved, and accumulated stocks of Finnish goods were marketed, the imports being worth £34 millions

Finland.

and the exports £27 millions at the current rate of exchange. Since 1920, in spite of falling prices, this total and proportion have been maintained and increased, the import figure for 1928 being £41½ millions, the export figure £32 millions, the total making a *per capita* trade of £21. The bulk of the population of Finland is rural, and the only large town is Helsingfors (Helsinki), the capital, with 187,500 people. Åbo, an important seaport, has 56,000, while Tammerfors, a leading industrial centre, has 46,000. The country people are predominantly Finnish (a race of Mongolian extraction), but round the coast and in the towns there is a considerable Swedish element, and hence the Swedish as well as the Finnish language is commonly used and understood in the commercial world. A strong anti-Swedish feeling exists, however, among Finns, which must be allowed for, many Finns preferring German as a language of foreign commerce. There are, besides, numbers of semi-nomadic Lapps in the interior and in the north, who usually understand Finnish in addition to their own language. The religion of both Finns and Swedes is Lutheran. The interior and north are very scantily peopled, the majority of the inhabitants living within sixty miles of the sea-board.

Position and Climate.—Finland stretches from latitude 60° N. to within the Arctic Circle, and from the Gulf of Finland to the Arctic Ocean. To the west lies the Gulf of Bothnia, the northern arm of the Baltic Sea, while to the east lies Continental Russia. The climate is necessarily severe, the winter cold increasing with distance from the sea, but as the Baltic itself becomes frozen in the winter months, it soon ceases to have any modifying effect on the climate. The summers, though short, are warm, and owing to the high latitude the hours of daylight are very prolonged during this season, so that crops come to maturity in a comparatively brief season. The rainfall is heaviest in late summer and autumn, but, generally speaking, it is rarely either in excess or defect. In winter the ground is always covered with snow. By May the seas are clear of ice, and commercial activity can be renewed. At Hangö, a small port at the extreme south-west of the country, where the winter is least severe, a channel is always kept open by Government ice-breakers, and this is usually the case at Åbo, while at Helsingfors the open season is prolonged by these means, although this harbour is closed during January, February and March. The tideless character of the Baltic is an advantage, since docks are unnecessary.

General Physical Conditions.—Finland consists of a low plateau of very old crystalline rocks (largely granite), studded with innumerable lakes, these forming a useful means of internal communication. The rivers drop sharply from the edge of the plateau to the coast plain, and hence there is abundance of water-power (the famous Imatra Falls are owned by the State). The interruption of the flow of water in winter makes the employment of this power less easy than would otherwise be the case, but very important schemes are under consideration. In 1921 money was allocated to preliminary work on the Imatra Scheme, which took eight years to complete. From these falls over 200,000 H.P. will ultimately be developed. Power is now supplied to Viborg, Helsingfors and Åbo.

The irregular pitting of the plateau surface, leading to the formation of lakes, is matched by the irregularity of the coast, which is deeply indented

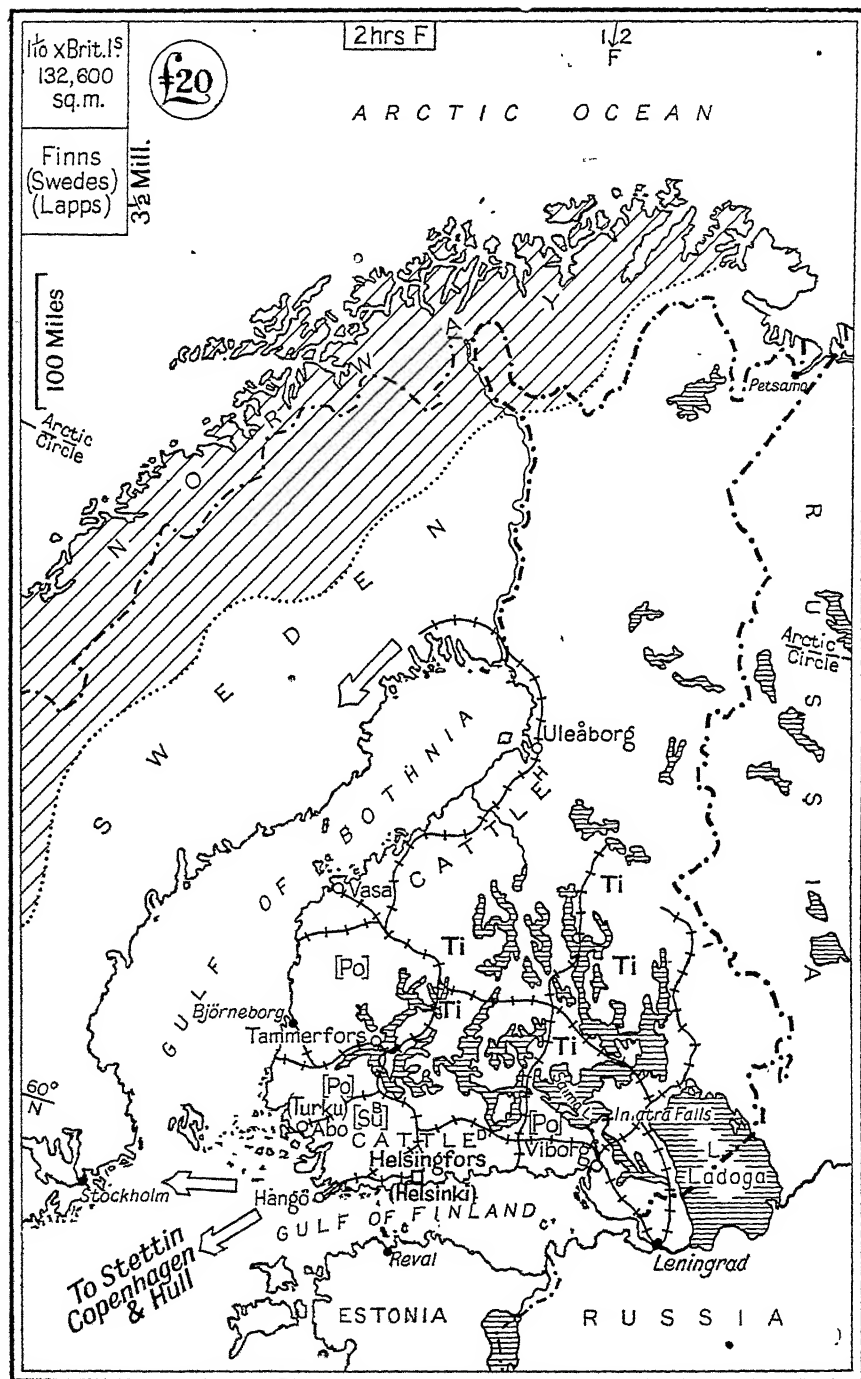


FIG. 42.—FINLAND

Finland.

and bordered by numberless small islands or skerries. Hence the harbours are safe and sheltered in all weathers. The soils are of glacial origin and consist of gravels and clays, and as they are often water-logged, there is much peat-bog and wet moor in the country. The vegetation is, however, chiefly of coniferous forest (larch, pine, fir), which constitutes the most considerable source of wealth in Finland. Birch, willow and alder are also abundant. The State Forests cover 25 million acres.

Human and Economic Conditions.—The high latitude and cold climate make it impossible for agriculture to assume importance in Finland. Such hardy cereals as rye and oats, together with green crops, roots (including beets) and potatoes are the staples of the farmer, consequently attention is being focused on stock-rearing, and particularly on the raising of dairy-cattle. **Butter** is an important article of export, especially from the south and south-west of the country. Before the War some 11,000 tons were sent abroad annually, of which the bulk was from Co-operative Creameries. Over half the quantity came to the British Isles. The number of horned cattle is $1\frac{3}{4}$ million. As has been mentioned, however, the *forest* industries are the most valuable, and the lakes and rivers make it possible to float timber cheaply down to the saw-mills. Canals have also been constructed, e.g. the Saima Canal behind Viborg. Sawn **timber**, pit-props, *paper pulp*, *cellulose*, cardboard and *paper*, especially *news-print*, are produced in bulk, while there is also a (declining) output of *pitch* and *tar*, a growing *match* industry, and a future industry of importance in the distillation of *wood alcohol*. *Bobbins* are made from birch-wood, and the export is considerable. Water-power is widely employed in the timber industries. Mining is unimportant, but some **iron** is raised and smelted. This, together with imported iron, is worked at Tammerfors and at Vasa, which have *iron and steel* and machinery and engineering works on a considerable scale. Tammerfors is also the centre of the Finnish *textile* industry, carried on with imported cotton. This town, like Helsingfors, is largely built of local **granite**, which is of good quality and forms an article of export. Apart from the saw and pulp mills, paper and match factories, the only other industry of note is that of **leather** working at Uleåborg, a port near the head of the Gulf of Bothnia. Here there are tanneries and boot factories of some reputation. The fact that the long, dark winters confine the country people to their homes during that season leads to the development of domestic handicrafts, so that hand-spinning and weaving, furniture-making and wood-work, are important cottage industries.

Trade Relations.—Finland offers a market for food-stuffs, principally cereals and groceries (sugar, coffee, cocoa, etc.); for every variety of manufactured article; for chemicals; and also for raw materials, such as cotton, for semi-manufactures such as pig-iron, and for coal. Many of these products (all those from distant parts) do not come direct from the country of origin, Finland being served via such entrepôts as Newcastle and Hull, Antwerp and Rotterdam, Stockholm, and (except during the War) Hamburg and Stettin. Timber and its derivations form over two-thirds of the total exports. The natural markets for Finnish timber and dairy products are the industrial centres of Western Europe, including Great Britain and Germany, besides Holland (for wood products), but again much of the trade is indirect, and is handled by Swedish merchants dealing in the

France.

same classes of goods. There is, however, great scope for the establishment of a considerable direct trade between Finland and Britain. Large sums of money have been voted for harbour improvements, and in particular the capacity of the free harbour of Hangö, which is nearest to Western Europe and is accessible all the winter, is to be greatly enlarged.

At present, while Great Britain holds far the most important place as a purchaser of Finnish goods, she competes with the United States for the second place in supplying Finnish needs, the first place being firmly held by Germany.

General Information.—The unit of currency is the Finnish *mark*, equal to 1·24*d.* or 193·23 to the pound sterling. At present there is a very large quantity of paper money in circulation. The metric system of weights and measures is universally employed. The Finlands Bank and Nordiska Föreningsbanken have London agents. Mails reach Finland in 4½ days, and there are air-lines from Helsingfors to Stockholm, Riga, and Reval. There is a British Consul at Helsingfors and there are Vice-Consuls at Åbo, Hangö, Viborg, Tammerfors, Uleåborg and other towns. Finland is a member of the League of Nations.

FORMOSA

See **Taiwan**, p. 421.

FRANCE

Area and Population.—The French Republic (including the island of Corsica) has an area of nearly 213,000 square miles, or about 1½ times that of the British Isles, with a population of 40½ millions. Nearly 2 million people and 5,600 square miles of territory were added to France by the Treaty of Versailles, which restored to her Alsace-Lorraine. About 2½ million foreigners are resident in France, the most numerous being nationals of the boundary States—Italy, Belgium, Spain, Germany, Switzerland, in the order named. There are very large numbers of foreigners in Paris and on the Riviera. The birth-rate in France is under twenty per thousand, and during the war years, deaths were largely in excess of births. Hence France has not felt the need of overseas expansion as have such countries as Britain, Germany and Japan, nor is there any stream of emigrants such as leave Scandinavia, Italy and Russia. The foreign trade in 1919 amounted to £1,540 millions, or about £39 per head of population. The imports were over three times the exports, this abnormal state of affairs being due to the devastation of the leading industrial regions during the War. In 1913 the total was only £590 millions, of which imports represented 57 per cent., the small excess of imports being of normal occurrence, since France has valuable colonies which are giving a return for invested capital, and, in addition, much foreign money is spent in Paris and in French pleasure resorts. In 1920 there was a slight diminution in imports, and exports nearly doubled in value, while in the first half of 1921 there was a very heavy fall in imports, and a much smaller fall in the value of exports, largely due to falling prices. Thus a healthier state of affairs was in process of restora-

France.

tion. In 1922, of a total of £750 millions, 46 per cent. represented exports, while in 1927, 1928 and 1929 the total trade averaged £860 millions, with under 2 per cent. excess of imports. The *per capita* trade of £21, less than half that of Great Britain, is related to the variety of internal resources, and the more thrifty way of life of the French peasantry.

The population of Paris is nearly 3 millions; the leading seaport, Marseilles, has over $\frac{1}{2}$ million, as has Lyons, the commercial and industrial centre of the Saône-Rhone valley. Bordeaux, the western seaport, has over $\frac{1}{4}$ million, and Lille, the great industrial centre of the north-eastern coal-field, has over 200,000. In addition there are thirteen towns with over 100,000 inhabitants, including Strasbourg in Alsace, Nantes, Toulouse, St. Etienne, Nice, Le Havre, Rouen, Roubaix, Nancy, Mulhouse, Toulon, Reims and Clermont-Ferrand.

Position, Climate and General Physical Conditions.

—France extends from latitude 51° N. (the latitude of Southern England) to latitude 42° 20' N., and has seaboard on the North Sea, English Channel, Atlantic Ocean and Mediterranean Sea, besides land frontiers with Belgium, Luxemburg, Germany, Switzerland, Italy and Spain. In the main, these frontiers are formed by well-marked natural features—the Ardennes and Rhine Mountains, the Rhine, the crest of the Jura Mountains, the crests of the Alps and of the Pyrenees—but in the case of Belgium the boundary is an artificial line across an open plain. The hilly region of French Lorraine, and the Gate of Belfort, between the Vosges and Jura, formerly gave access to German Lorraine and Alsace respectively, while the gap between the Jura and the Alps, in which Geneva stands, affords an entry into Switzerland. To reach Italy the Alps must be crossed, or rounded at their seaward extremity by way of the Riviera. In the case of Spain, also, the main route is between the western spurs of the Pyrenees and the Bay of Biscay, and the secondary gateway between the Pyrenees and the Mediterranean. The fact that France has so much mountain country is of considerable economic importance, for the Vosges, Jura, Alps and Pyrenees all supply abundant water-power, and the number of hydro-electric enterprises is large and steadily increasing.

The country falls into a number of well-marked divisions, both physically and climatically, these regions being disposed about the Central Plateau, itself a somewhat bleak, rainy and relatively poor district. Foremost among these divisions is the Paris Basin, drained by the Seine, with its tributaries the Oise, Marne and Yonne, of which Paris is the focusing-point. The climate is both hotter in summer and rather colder in winter than that of London, and the rainfall is moderate. In addition there is a diversity of soils, and a series of low hills breaking the plain, giving exceedingly favourable conditions for agriculture. To the west of this region lie the peninsulas of Normandy and Brittany, with a more rugged configuration, and a wetter and milder climate.

Second only in importance to the Paris Basin, which opens northward to the Channel, is the great trough drained by the Saône and Rhone, which opens southward to the Mediterranean, and has always been a great highway from that sea to the centre and west of Europe. Here the climate is much hotter than in Paris, and increasingly so towards the south, where the winters also become mild. In the lower Rhone and on the Mediterranean seaboard (Languedoc and Provence) the summer season is very dry, and the typical

France.

products of the south—the olive, mulberry, chestnut, peach—contrast with the grain, green crops, pastures and apple-orchards of the north. In Corsica the summer heat and drought are still more marked, and the stony hill-sides are clothed with shrubs, such as myrtle, tree-heath, and ilex, rather than with grass.

A third great region is the Garonne Basin—Guyenne and Gascony—with a climate that is hotter in summer and warmer in winter than Paris, but with a rainfall that is more evenly distributed than in the Rhone valley, since the region forms a plain lying open to the Atlantic.

Human and Economic Conditions.—With so great a diversity of fertile regions, contrasting in soil, aspect and climate, and with a peasantry closely attached to the land, it is not surprising that France is normally almost self-supplying as regards food-stuffs, apart from those limited to the tropics. The system of peasant-proprietorship and the division of the land into small holdings allows of intensive cultivation, and in many parts **fruit and vegetables** are raised as money crops. Consequently large quantities of greengages, walnuts, cherries, melons, asparagus, cauliflowers, beans and so on are sent to the English and German markets, besides dried plums and apples, while in addition the Paris and other French markets are supplied. Different districts specialize in different products, according to their climatic requirements, e.g. figs, almonds and melons come from Provence in the south, and asparagus from the Paris Basin, while the island of Corsica, which is as far south as northern Spain, produces citrus fruits, as well as almonds and **chestnuts**. The latter have been extensively planted in the south of France, especially on the slopes of the Cevennes, overlooking the Rhone valley. Such tree-crops turn barren hill-sides into well-paying property. *Olives* are characteristic of the regions of summer drought. **Flower**-growing is an industry specially favoured by the mild winters and springs of the South of France, violets, roses, anemones, carnations, etc., being grown on a large scale, and the cut blossoms dispatched to the markets of Britain and Germany by special express trains.

The staple crop of France is, however, **wheat**, half the land under cereals being devoted to this crop, so that the bulk of the wheat flour needed is a home supply. The Paris Basin and the north-eastern plain are the great wheat regions. *Rye* and *buckwheat* are grown on the more sterile soils of the Central Plateau and of Brittany, while *oats* (second in acreage to

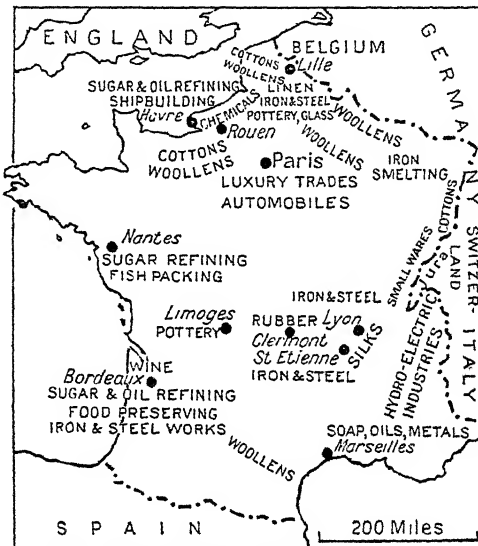


FIG. 43.—FRANCE: MANUFACTURES.

France.

wheat) are again more important in the Paris Basin, and *barley* in the basin of the Loire. *Maize* is grown, but in diminishing quantities, in the warmer Garonne basin, where the necessary summer rain occurs. Much maize and a little wheat is imported from the Argentine, but both wheat and barley are more readily supplied from French Algeria, where they are among the leading staples. The wheat yield is about 7 million tons.

Potatoes are grown in quantities allowing of export, being specially important round the margins of the Central Plateau and in Brittany, where the soil is too poor and wet for cereals. Early potatoes are imported from Algeria and Spain, late varieties from Belgium. The **beetroot** is grown both for *sugar* and for the distillation of *alcohol*. This crop requires a large number of animals and of labourers for tillage, besides a considerable outlay for fertilizers, while it is necessary to arrange for the by-product—beet-pulp—to be fed to stock. It is grown especially in the densely peopled plains of the north-east. The average production of sugar is $\frac{3}{4}$ million tons, i.e. but little less than the total requirements of the country. The progress of restoration is indicated by the fact that the 1921 crop was over $\frac{1}{2}$ million tons as against 346,000 in 1920, and by 1925 conditions were normal. *Flax* is another crop of the north-east, but the cultivation is decreasing, and the same is true of *hemp*, grown mainly in the north-west. *Tobacco* planting, which is fairly general, has also decreased. *Hops* are locally important, e.g. in Burgundy and Lorraine, and the acquisition of Alsace has considerably increased the home supply both of this crop and of *tobacco*, while the same region, which is extremely warm and fertile without being too wet, grows valuable wheat crops.

Although all these agricultural products are very important in the internal economy of France, it is the **vine** that holds the first place in regard to overseas trade, since French wines are sought after in every civilized part of the world. Only the north and north-west of France have summers too cool to bring the vine to perfection, and in these regions much cider and beer are brewed and consumed. The areas producing famous vintage wines are well known; Champagne (with Reims and Epernay) in the east of the Paris Basin, Burgundy (with Beaune and Maçon) in the Saône Basin, Bordeaux in the Garonne Basin. Moselle wines come from Lorraine, and the restoration of Alsace added a further wine-growing district. Charente, to the north of Bordeaux, is the centre for the distillation of **cognac**. Except, however, in the north and north-west (where the cider-apple takes its place), the vine is grown in every valley, the production being about 1,000 million gallons, of which only 20–40 million gallons (mainly of the vintage wines) are exported. The import often reaches 200 million gallons, and includes besides Spanish, Portuguese and Italian vintage wines, much ordinary wine (e.g. from Algeria) for blending and bottling.

The animal industries are important, especially *dairying* in the moist pastures of Normandy and Brittany (which resemble Devonshire), and on the plains of Artois in the north-east. Artois was, of course, included in the devastated area, and the number of horned cattle in 1918 was 12½ millions, against 14½ millions in 1911. By 1927 it was 15 millions. A considerable quantity of **butter**, formerly sent across the Channel to England, now finds a market in Paris. In the regions opening to the Mediterranean the dry summers are unfavourable to grazing, so that *goats* and *sheep* which will browse on the hill-sides assume a greater importance, their milk being

France.

an article of commerce. In the upland and mountain regions pastoral industries assume a greater relative importance, e.g. cattle and sheep on the Central Plateau, cattle and goats on the Jura and in the Alps, cattle, goats and sheep on the Pyrenees. *Cheese* is very widely manufactured, both on the mountain pastures, and in the lowland grazing districts, and certain well-known varieties, e.g., Roquefort, Gruyère, Camembert, are exported. The number of sheep and lambs in 1921 was only $9\frac{1}{2}$ millions against $16\frac{1}{2}$ millions before the War, and similarly the number of goats and pigs was seriously reduced, but the two latter have returned to the older figures.

Silk culture, encouraged by the Government, has a place in the lower Rhone valley, where the climate is favourable to the mulberry-tree. The output of $2\frac{1}{2}$ million kilogrammes of cocoons (over 5 millions before the War) is, however, far below the requirements of the silk industry.

The *fisheries* of France are of considerable importance, although they have declined during the twentieth century. The catches of **cod** (including roe and oil) are worth about a million sterling, taken mainly on the Newfoundland and Iceland Banks. Saint Malo, in Brittany, and Fécamp, near the mouth of the Seine, are the principal ports for cod, while Boulogne ranks first with regard to the **herring** fisheries of the North Sea. **Tunny** and **sardines** are fished along the Atlantic and Mediterranean coasts, and when packed in oil form a valuable export, tunny going to Italy and Malta, sardines to Great Britain and the United States. Nantes has large canning factories, but the competition of Portugal is keenly felt.

As regards minerals, the chief wealth of France lies in **coal** and **iron**. The chief coal-fields are those of the north-east (Lens, etc.), supplying in 1913 some 27 million tons. Besides this large field there are a number of smaller ones distributed along the margin of the Central Plateau—Creusot, St. Etienne, Alais, Tarn, etc., which yielded another 12 million tons. Minor fields in the Alps, Vosges, etc., made up the total French output to 41 millions, leaving 21 millions to be made up by import in order to meet the total consumption. Actually some $1\frac{1}{2}$ million tons more than this quantity were imported, since some of the Lens coal moves into Belgium by water, and some from the more southerly fields into Switzerland. The main import was from Great Britain, which was equal to that from Germany and Belgium combined. The Saar coal-fields, of which France has temporary possession, can produce 12 million tons, and the smaller fields of German Lorraine $2\frac{3}{4}$ millions, while since the damaged mines of the north-east have been restored, their capacity has been considerably increased, and the French demand for British coal shows a corresponding decrease. Excluding the Saar, the 1928 output was no less than 50.4 million tons. There is, however, an increased consumption owing to the growth of the *iron* industry, for by the acquisition of German Lorraine, the resources of France in iron ore are increased to an almost embarrassing extent. In 1913 France produced nearly 22 million tons of iron ore, of which over 90 per cent. came from French Lorraine, Longwy, Briey and Nancy, and the rest from the neighbourhood of Le Creusot, and from Normandy, Caen being the shipping port. The Lorraine ores are rich in phosphorus, while pure hæmatite ores are mainly imported from Spain and Germany. To these must be added large iron resources in Algeria and probably in Morocco, while the former German Lorraine produces normally $20\frac{1}{2}$ million tons. Hence France now ranks second only to the United States as an iron-producing country, while Ger-

France.

many has a position inferior to that of Spain, and must buy from France. The manufacture of *pig-iron* and iron-castings averaged 5 million tons, and of trade iron, sheet iron and *wrought iron* $\frac{1}{2}$ million tons before the War. The output of *steel ingots* was $4\frac{1}{2}$ million tons, of which more than half was from Lorraine, of *blooms* and *billets* $2\frac{1}{2}$ million tons, and of finished steel products 3 million tons. The 1928 output (excluding the Saar) was 10 million tons of pig-iron, and 9 million tons of crude steel (ingots and castings), i.e. the industry has practically doubled. The chief steel-works are, of course, in Lorraine, on the north-eastern coal-field, at Le Creusot and at St. Etienne, but important new works have recently been established at Caen.

France shares with the United States the leading position in the production of **aluminium**, the chief centres being in the Pyrenees, Cevennes and Savoie, since this mineral is electrically separated from its ore, but the bauxite itself is obtained from Var (Provence). The restoration of Alsace has added the *oil-wells* of Peschelbrön to the resources of the country (output 200,000 barrels), and there is an *oil-shale* industry at Autun (near Le Creusot) yielding 50,000 barrels annually. **Salt** is mined to the extent of a million tons annually, chiefly from the red rocks in the Nancy region.

The *textile* industries of France are all on a very important scale, the number of cotton spindles being 11 millions, and of cotton looms 191,000, the number of wool-combing and carding looms 3 millions, the number of linen spindles over $\frac{1}{2}$ million, the number of silk looms over 40,000.

Since the **cotton**, **woollen** and **linen** industries were carried on largely on the north-eastern coal-field, all suffered heavily by the War. Thus Epinal, Lille, Roubaix and Tourcoing were cotton centres, Roubaix and Tourcoing woollen centres, Lille the chief linen centre: only the silk centre, Lyons, escaped, and here the competition of cheap Eastern silks and of artificial silk must be faced. Actually, however, wholesale reconstruction in the north-east has greatly increased industrial efficiency, since much equipment badly needed replacement.

Also in the war zone were the cotton mills of the Vosges (where water-power is largely employed), but here there was less destruction, and by the acquisition of Alsace, France gained an additional 1.9 million spindles and 46,000 looms, the industry here centring at Mulhouse and Colmar. This was one of the leading cotton manufacturing and cotton printing regions of Germany. Outside the war zone, the cotton industry is important in Rouen and in Normandy, where American cotton is conveniently imported. Much British yarn is used on the looms. Cotton hose, lace and embroideries are the chief goods sent abroad. Caudry, near Cambrai, is a competitor of Nottingham for nets and coarse lace. Imported jute is manufactured at Dunkirk.

Apart from the north-east, the woollen industry is scattered in various districts where sheep are important, e.g. at Sedan, near the Ardennes, at Reims, near the chalk downs, at Elbeuf, on the chalk plain of the Seine, and at Vienne and other towns around the Central Plateau. Raw wool is imported from Australia, either directly or through London, from Argentina, and in less quantity from Uruguay. France specializes in fine and dainty woollens such as cashmeres, merinos and delaines.

Lyons is the historic commercial centre of the **silk** industry, and here is the principal conditioning bureau, but the actual spinning and weaving mills are scattered through the lower Rhone valley, where the silk-worm is

France.

reared. The home supply of silk is barely a tenth of the total consumed, and the remainder is imported from the Far East and from Italy. Both heavy and light silks are manufactured, besides ribbons, and no other Continental manufacture can compete with French silks dyed in the piece. Nearly two-thirds of the export of silk goods goes to Great Britain, and a considerable proportion to the United States.

The production of *artificial silk* yarns and textiles has rapidly increased, both at Lyons and in the north-eastern textile areas, and France now produces about 10 per cent. of the world supply.

Among other industries in which France holds a foremost place is the manufacture of *automobiles*, centred at Paris, Lyons and St. Etienne. The average export is worth nearly £10 millions, and the French cars compete successfully with those of the United States, Great Britain and Italy. Among luxury trades that of *perfumes* and toilet *soaps* requires mention, as here France (and especially Paris) leads the world, and the same is true of the manufacture of ladies' *gowns, hats* and *lingerie*. There is also a large manufacture of plain *soaps* at Marseilles, based originally on the local olive-oil. This port now receives olive-oil from Tunis, besides copra, ground-nuts, soya beans and other substances yielding vegetable oils. Hence vegetable oil-refining is important.

The manufacture of *rubber* tyres is a natural accompaniment of the automobile industry, and France is a leading market for rubber, receiving the raw material from her African colonies at Bordeaux, from Para at Havre, and from the Far East at Marseilles. Clermont-Ferrand, in the heart of the Central Plateau, is the leading centre of manufacture, while Marseilles and Paris have also important rubber works.

Other industries in which France is more than self-supplying are the *electrical industries* and the *electro-chemical* industries (preparation of aluminium, fertilizers, alloys). It should be noted that France is making systematic use of the large reserves of hydraulic power supplied by the Vosges, Jura, Alps and Pyrenees, on all of which there is a steady and heavy rainfall, with in the higher mountains snow besides. It is estimated that 2 million horse-power was installed by 1923, and the figure should shortly be 3 million horse-power. Water-power has long been used on a small scale in the mountain valleys, and accounts for such industries as the lens polishing and briar-pipe making of the Jura. The fertilizer industry is greatly benefited by the restoration of Alsace, since in the Mulhouse region is an important *potash* deposit, which renders the country independent of Germany in this respect. An output of 150,000 tons in terms of pure potash was the average for 1919-29, and the resources of the area are said to be equal to those of the famous Stassfurt mines, which at one time practically held a world monopoly. Moreover in Tunis and Algeria there are enormous deposits of phosphate rock, and in the manufacture of *superphosphates* (over 2 million tons) France is second only to the United States. *Basic Slag* is also largely produced, besides *ammonium sulphate*. Hence the productivity of the soil can be maintained, or even increased, provided the necessary labour is forthcoming.

The French *sugar-refineries* deal with large quantities of imported raw sugar, the most notable centres being Nantes, which deals with cane-sugar from Martinique and Guadeloupe, and Havre, which refines Continental (e.g. Czechoslovakian) beet-sugar. A part of the product is exported,

France.

while French chocolates and sweetmeats also have a large market abroad.

Trade Relations.—French luxury articles, including wines, perfumes, clothing, jewellery, artificial flowers, fine silks, confectionery, and automobiles, find a market throughout the civilized world, and especially in such centres of wealth as London, New York, Buenos Aires, Rio de Janeiro and Berlin. Great Britain, as lying nearest, has the largest consumption, followed by the United States with its large and comparatively rich population. The French Colonies (which cover 5 million square miles and have a population of $53\frac{1}{2}$ millions) are also considerable purchasers of French manufactures, including, besides textiles, iron and steel goods, tools, machinery and wine. Broadly speaking the imports into France are of a more bulky character than the exports, and include grain from the Argentine, raw cotton from the States and Egypt, raw wool from Australia and the Argentine, besides cotton yarn and woollen yarn from Great Britain. Cacao, rubber, rice, coffee, oil-seeds, sugar, and other colonial wares come in large quantities from the French Colonies and from tropical South America, while coal and machinery (largely from Great Britain) petroleum (from America) and copper (from Spain and America) are also imported to the value of many millions. In the years immediately preceding the War the proportion of French trade to and from the leading countries was as follows: Great Britain, imports 13 per cent., exports 21 per cent.; United States, imports $9\frac{1}{2}$ per cent., exports 6 per cent.; Germany, imports $12\frac{1}{2}$ per cent., exports $12\frac{3}{4}$ per cent.; Belgium, imports $6\frac{2}{3}$ per cent., exports 16 per cent.; Algeria, imports $4\frac{1}{2}$ per cent., exports 6 per cent. In 1918, 33 per cent. of the imports were from the States, 28 per cent. from Britain, and 5 per cent. from Argentine, while of the exports 24 per cent. went to Britain, 20 per cent. to Italy and 11 per cent. to Algeria.

To-day the trade is much more widely distributed, no one country either taking or supplying a large percentage. Countries supplying from 8 per cent. to 12 per cent. each of the imports are the United States, the United Kingdom, Germany and Belgium: Argentina, supplying wool and cereals, has the fifth place. Great Britain takes from 15 per cent. to 20 per cent. of the exports, large individual items being silks, both natural and artificial, and fine woollens: purchases of wines and motor-cars are about equal in value. Belgium purchases about 12 per cent. and Germany 7 per cent. of French exports, while the United States share is only about 6 per cent. and that of Italy 5 per cent. Switzerland also takes 6 per cent., and it may be noted that Belgium, Germany, Switzerland and Italy all have frontiers marching with those of France. Germany makes large purchases of semi-manufactured steel, as well as of woollen and cotton yarns, fabrics, raw skins, hides and leather.

The internal trade of France is greatly facilitated by a fine system of canals and canalized rivers, the traffic being specially heavy on the Seine below Paris, and on the Oise and the canals of the north-east which are linked with those of Belgium. A scheme is under consideration for the transformation of the Rhone (at present unnavigable) into a trunk waterway to Lyons and Geneva (Switzerland) and incidentally, by locking up the water, to provide power for large hydro-electric stations. Large sums of money have also been allocated for port improvements, and a canal linking Marseilles to the Rhone canal has been constructed.

French Establishments in Oceania.

The bulk of the heavy overseas traffic of France passes through Marseilles, Havre and Bordeaux, but there is also great activity at Dunkirk (for the north-east), at Rouen (on the Seine) and at the packet stations of Boulogne, Calais and Dieppe. Brest has a fine deep-water harbour, where facilities were enormously increased during the War, but it has no industrial hinterland. Strasbourg, on the Rhine, has a large water-borne trade, notably of cereals and coal inward and of potash and soda outward.

General Information.—The unit of currency is the *franc*, of 124·21 to the pound sterling. The issue of bank-notes against a gold reserve is limited to the Bank of France, which is under State control. The Comptoir National d'Escompte de Paris, and the Crédit Lyonnais have London Offices, while the Westminster Bank and Barclays Bank have Paris branches. Mails reach Paris in a day, or by air in 4½ hours. There are British Consul-Generals at Paris, Havre, Marseilles and Strasbourg, and Consuls at all the principal ports and industrial centres. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy. France is a member of the League of Nations.

FRENCH CHINA

Kwang Chau Wan is a territory in Southern China, on the coast of Kwantung, leased to France. It covers 190 square miles, and has a population of 168,000. The crops are those of Southern China—rice, maize, millet, sugar, tea, cotton, silk and tobacco, which are consumed locally. *Pigs* are reared, and are an article of export, besides straw mats and sacks. Cotton piece goods and petroleum are the chief imports. The port is a free one, and is in regular communication with France. It is administered from Indo-China.

FRENCH ESTABLISHMENTS IN OCEANIA

Area and Population.—The Ocean Island Settlements are a French Colony administered by a Governor. They include the Society Islands, Marquesas Islands, Tuamotu group, Leeward Islands, Gambier, Tubuai, and Rapa Islands. The only large island among them is Tahiti (600 square miles). The total area is 1,500 square miles, and the population about 36,000, including about 1,000 French and English colonists, and nearly 4,000 Chinese, besides the native Polynesians. Of this total nearly 12,000 are in Tahiti, where is the principal port and centre of administration, Papeete. The total trade averages £¾ million (£25 *per capita*), exports being approximately equal to imports.

Position and General Information.—The various island groups are scattered over a wide area in the eastern part of the South Pacific Ocean. Broadly, they lie between 8° S. and the Tropic of Capricorn, and between 130° and 150° east of Greenwich, about 3,000 miles from America. Tahiti is mountainous and forested, but the greater number of the islands are low-lying and of coral formation. All have the healthy, pleasant perpetual summer climate associated with the Pacific islands. The principal

French Equatorial Africa.

product is **copra** (£250,000 in 1927) from the numerous coco-nut groves, but sugar, cotton, coffee, tobacco, bananas, and a great variety of other tropical produce can be grown. **Vanilla** is successful and ranks next to copra as an export. The natives are mainly fishers, and the Tuamotu Islands supply the bulk of the *mother-of-pearl* exported. There are also enormous deposits of very high-grade **phosphates** which are worked on Makatea, one of the Society group. The output is 130,000 tons.

The language, currency, weights and measures are French. The Banque de l'Indo-Chine has a branch at Papeete. A New Zealand steamship company sailing to San Francisco (with a French subvention) visits the islands monthly and mails arrive via San Francisco in 23–26 days. There is no cable service or direct connection with France, hence the trade is with New Zealand and America. There is a British Consul at Tahiti.

FRENCH EQUATORIAL AFRICA

Area and Population.—French Equatorial Africa includes the Gabun, Middle Congo and Ubangi-Shari and Chad Colonies, the (formerly German) Cameroons, and the Wadai Protectorate. Each territory is administered separately, but the whole region is under a Governor-General. The total area is about 1 million square miles—roughly the area of British South Africa, and the population, formerly estimated at 12 millions, mainly pagan negroes, is now placed at only 6 millions. The whole trade of this enormous territory is, however, barely £5 millions. The seat of the General Administration is at Brazzaville, situated at a healthy elevation on the River Congo, opposite Leopoldville, capital of Belgian Congo.¹

Position and General Physical Conditions.—Broadly speaking, this French territory stretches from the equatorial coast of Africa (4° N.–5° S.) inland towards the north-east as far as the Nile watershed and the Egyptian Sudan. South-eastward it is separated by the Ubangi and Congo rivers from the Belgian Congo. North-westwards it marches with British Nigeria (to which a small part of German Kamerun was added), and in the Lake Chad area it is bounded by the French Military Territory of the Niger, which is included under French West Africa.

The regions within 300 miles of the Equator have very heavy tropical rains, and are to a large extent clothed with dense forests. With increasing distance northward, the dry season becomes more prolonged, and the total rainfall less. Hence the forests give place to open woodland and savannahs, and this in turn to scrubland, until finally, on the northern confines of the territory lies the Sahara Desert. The greater part of the country is elevated, the greatest altitudes being found in the Cameroons.

Human and Economic Conditions—The territory is practically undeveloped, except for a small trade along the coastal belt in natural forest produce, chiefly *palm oil* and wild *rubber*, and a little *timber*. In the former German Cameroons, however, many plantations had been laid out. These included 25,000 acres under **cacao**, 17,000 acres under **rubber**, and in this region the trade in palm oil and kernels is much more

¹ For Map see French West Africa.

French Guiana.

active. In Gabun the French planters have cultivated some **coffee**, and minor products of the forest region are ivory and kola-nuts. With the Cameroon the French have acquired the important port of Duala (population 22,000), which was the German centre of development, and the railways running from it to the north and east (about 20 miles). Besides being suited to plantation products, the forest region has valuable timbers, such as ebony and other hardwoods. The interior savannahs of the Ubangi-Shari and Chad Colonies, and Northern Cameroon are suitable for cotton and maize cultivation, and produce abundance of *ground-nuts*, besides *cattle* and other live stock. At present, however, there is no means by which such products could be transported to the coast. The tsetse fly is found in the forest region, and in some districts sleeping sickness is very prevalent among the natives.

Trade Relations and General Information.—Trade is chiefly with France, but British cotton goods for the native market enter the country. The chief ports are Libreville, with deep sheltered anchorage in the mouth of the Gabun river, and Duala, with fair accommodation. Brazzaville is reached via the Belgian port of Boma, but a railway to a French Atlantic terminus at Pointe Noire is nearly complete. French weights and measures and money are in use.

The French Bank of Africa, Ltd., has offices at Brazzaville and Libreville. Communication between different parts of the Territory is by telegraph and wireless, and there is cable connexion with Britain. Mails take three weeks in transit.

FRENCH GUIANA

Area and Population.—French Guiana is a colony administered by a Governor. It has an area of 35,000 square miles (about equal to that of Ireland), and a population of about 42,000 persons, excluding some 6,000 convicts and ex-convicts in the penal settlement. Cayenne, the principal town and seaport, has 14,000 inhabitants. The total foreign trade is under a million sterling, since little has been done to develop the resources of the colony.¹

Position, Climate and General Physical Conditions.—Lying between latitudes 2° N. and 6° N., French Guiana has a uniformly hot and wet climate all the year round, resembling that of the Amazon basin, and is consequently clothed with dense virgin forest. Towards the interior there are highlands, at present practically inaccessible, where conditions are more favourable, there being a season of dry, cool weather, and an open savannah type of vegetation.

Human and Economic Conditions.—The climate and soil of the colony are suitable for all types of tropical plantation products—sugar, rice, cacao, coffee, rubber, and so forth, but in the absence of coolie labour there is little cultivation except for local needs. **Gold-mining** is the principal industry, the river gravels being rich in alluvial gold. The output is worth about £½ million annually. Apart from this, the produce of the cacao plantations and a small quantity of *phosphates*, worth but a

¹ For Map see British Guiana.

French Indo-China.

few thousands of pounds, are the only exports. Except for fruit, vegetables and some locally grown maize, rice, sugar and coffee, all the necessities of life for the colonists are imported.

The settlements are along the coast, and by the rivers and creeks, communication being mainly by water. There are few roads and no railways. A French cargo boat calls monthly, and Demerara (in British Guiana) serves as an entrepôt for the colony.

General Information.—The local Banque de la Guyane lends money for agricultural and other purposes. The coinage, weights and measures are as in France, i.e. *francs* are the money unit, and the metric system is employed. Mails take 17–24 days.

FRENCH GUINEA

See **French West Africa**, p. 194.

FRENCH INDIA

Area and Population.—French India consists of five separate colonies, Pondichéry, Karikal, Chandernagor, Mahé and Yanaon, covering an area of 196 square miles, and having a population of 266,000. Of these, over half are in Pondichéry, where the Governor of the Colonies resides.

General Information.—The staple crops of India, rice, cotton, sugar, oil-seeds, ground-nuts, are grown in the French colonies, of which the rice and sugar are locally consumed. **Cotton** is spun and woven in three mills in Pondichéry, on the Coromandel Coast, while at Chandernagor, on the Hoogly, north of Calcutta, there is a **jute** mill. **Oil-seeds** and **ground-nuts** are pressed at Pondichéry, and form the staple export of the colonies. The trade is worth rather over £2½ millions, passing chiefly through Pondichéry, and to a less extent through Karikal and Mahé, which are ports. A part of the trade is in transit to and from neighbouring districts of British India, Pondichéry and Karikal being the chief points of shipment of Indian ground-nuts. The unit of currency is the Indian rupee.

FRENCH INDO-CHINA

Area and Population.—French Indo-China comprises the Colony of Cochin China, and the Protectorates of Cambodia, Annam, Tonking and Laos. The whole country is under a Governor-General, but there are native monarchs on the thrones of Cambodia and Annam. The total area is 285,000 square miles (rather larger than Japan), and the population numbers 20 millions, of whom about 32,000 are European traders and colonists. The foreign trade exceeds £46 millions (i.e. over £2 per head), and is capable of great expansion, Indo-China being the most valuable of all the tropical possessions of France.

The people are a branch of the South Mongolian race, although the

French Indo-China.

Cambodians have physical characters which suggest a cross with an early race more similar to the European type. Education on Western lines is making headway, and there is a University at the capital city, Hanoi, in Tonking. This town has a population of about 100,000, and is the northern entrepôt of Indo-China, its port being Haiphong (population 75,000), while all the trade of the south passes through Saigon, the capital of Cochin China, which has 123,000 inhabitants. Immediately adjacent to Saigon is Cholon, a town of 198,000 inhabitants, of whom nearly half are Chinese. Pnom-penh, the capital of Cambodia, has about 85,000 people, Hué, the capital of Annam, has 40,000. As in Siam and Malay, much of the petty trade, both foreign and local, is in the hands of the Chinese, of whom there are over 200,000 in the country.

Position, Climate and General Physical Conditions.

French Indo-China lies on the east coast of Asia, to the south of China, and stretches from the Tropic of Cancer to within 8° of the Equator. Thus it has a tropical monsoon climate, with great heat and moisture combined in the summer months. Owing to the fact that no part of the country is much more than 200 miles from the sea, the rains are not uncertain as they are in parts of India, and even during the winter monsoon there is some precipitation. Eastwards the outlook is across the South China Sea (often swept by typhoons) towards the Philippines. South-westwards the outlook is over the Gulf of Siam to Malaya. On the land boundaries are China, Burma, and Siam.

The mountain system is a continuation of that of Yunnan. Two ranges diverge from the northern frontier: one runs eastwards and shuts off China, the other turns southwards, parallel to the coast of Annam. In the angle between the two flows the Song-ka (Red River), which has an exceedingly fertile flood plain and delta, the home of the bulk of the population of Tonking. Coming also from Yunnan, and flowing parallel to, but behind, the coast range of Annam, is the great Mekong River, which along its lower course has built up a vast flood plain and delta, where the majority of the Cambodians and Cochin Chinese live. The mountains are heavily forested

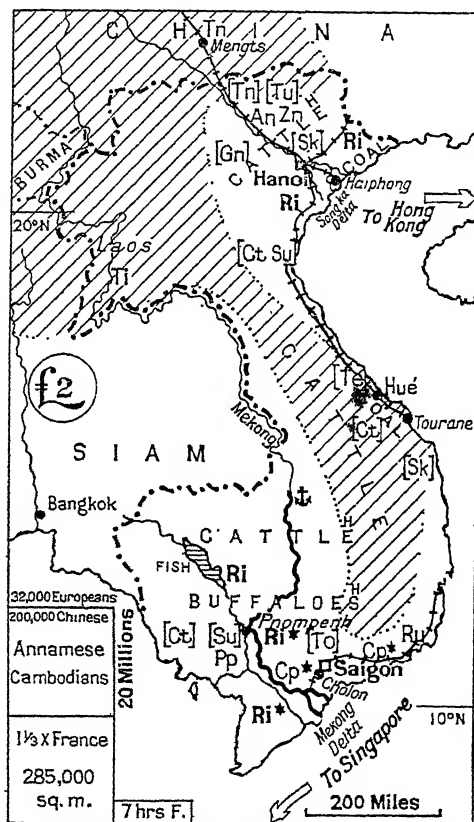


FIG. 44.—FRENCH INDO-CHINA.

French Indo-China.

and in the Laos territory, near the Burmese frontier, there is abundance of teak.

Human and Economic Conditions.—As on all the flood plains of the rivers of the monsoon region, **rice** is the staple crop of the two most productive areas, the lower Song-ka and the lower Mekong. After the home population has been fed there remains a big surplus for export, and in view of the large extent of undeveloped land, this quantity might be increased, while even the existing fields would be more profitable if more attention were paid to seed selection, and to the grading of the rice before shipment. The 1919-20 crop was $1\frac{1}{2}$ million tons, of which a quarter of a million tons was from Tonking, and this increased to $4\frac{1}{2}$ million tons in 1928, of which 35 per cent. was from Cochín China. Rice-milling is very important at Haiphong, Saigon, and Cholon.

The other crops grown on a considerable scale by the natives, although playing but a minor part in the export trade, indicate the latent possibilities of the country. They include *cotton, silk, tea, sugar, pepper, maize, tobacco, ground-nuts*—in fact all the products that are found in the wealthy provinces of Southern China. The native industries, too, are similar to those of the Chinese—cotton and silk weaving, embroidery, cane and bamboo work.

The great majority of the European plantations are under rice, but two industries of great promise are **rubber** and **coco-nut** planting—the latter being carried on by the native peoples also. Both these products are suited rather to Cochín China and Cambodia than to Tónking, where *coffee*-planting is on the increase. The *copra* is handled by the oil-mills of Saigon.

As the country is not over-populated, there is plenty of natural grazing for *cattle* and *buffaloes*, especially in Annam, and hides are exported, while, as in China, many people devote themselves to river- and sea-fishing, and there is a surplus of dried and salted *fish*. *Pigs* are also very numerous, and a canning industry has begun.

As in neighbouring Yunnan, the mountains are rich in minerals, of which **zinc** (40 tons of ore) and **antimony** are mined in Tonking, besides smaller quantities of *tin* and wolfram. **Coal** is mined in Central Annam, close to the coast, and is exported from Tourane, but the chief mines are those of Hongay, near the coast in Tonking, producing over 700,000 tons; 200,000 tons of briquettes are also produced. Limestone is quarried for manufacturing *cement*, of which the surplus is exported. **Teak** is floated down the Mekong from the Laos territory, but this region has not been thoroughly free from disorders among the native peoples, and is difficult of access, owing to the rapids which obstruct the river at Khone. *Lac* is produced.

Trade Relations.—The rivers are the great highways of commerce, but both from Hanoi and Saigon railways have been constructed to bring in the rice from areas lacking water communication. Hanoi is also the terminus of a railway running up the Song-ka Valley into Yunnan, to serve the Chinese tin mines. As in all French colonies, attention has been given to road-making, and there are some 9,000 miles of motor-roads. Irrigation and drainage schemes are also being carried out.

Rice forms about 70 per cent. of the total export trade, the remainder being made up of relatively small shipments of *copra*, *fish*, *pepper*, *rubber*, *coco-nut oil*, *sugar*, *cotton*, *tea*, *zinc*, *antimony* and *coal*. France holds, of

French Somaliland.

course, the first position both as regards the export and import trade, but much of the Tonking rice goes to China via Hong-Kong, while that from Saigon goes to Singapore. Japan takes the raw cotton, and a considerable share of ores, and finds a market in Indo-China for cotton and silk piece goods, cotton clothing, boots and shoes and other manufactures. America, too, has been making an effort to obtain a footing, supplying, e.g., galvanized sheets and other metal goods. The colony is practically self-supporting as regards food-stuffs for the peasantry. The chief imports, therefore, are of textiles (chiefly cotton), machinery, hardware and other metal goods, leather and paper goods, glass and earthenware, besides food and luxuries for the European population, and for the wealthy natives. Great Britain sent goods (chiefly cottons) worth over £2 millions to French Indo-China in 1919, but in 1928 the direct imports from Britain were worth only £350,000.

General Information.—The principal bank is the Banque de l'Indo-Chine, at Saigon. The Chartered Bank of India, Australia and China, the Hongkong and Shanghai Banking Corporation, and the Yokohama Specie Bank have branches at Saigon and Haiphong. The money unit is the *piastre*, a silver coin worth about 2s., but French coins, weights and measures are also employed. British vessels from Singapore and Hong-Kong, and French vessels from Marseilles visit Saigon and Haiphong (for Hanoi) regularly. Japanese vessels also call frequently. Mails reach Saigon in one month, and Haiphong in 2 or 3 days longer. There is a British Consul-General at Saigon, and a Vice-Consul at Haiphong.

FRENCH SOMALILAND

Area and Population.—The French Colony of the Somali Coast is administered by a Governor. It covers an area of nearly 6,000 square miles, and has 90,000 inhabitants, of whom nearly 10,000 live in the seaport and administrative centre of Djibouti. There is a large foreign element at the port, which handles a trade of about £7 millions. The Europeans include French, Greek and Levantine traders (nearly 300), besides over 4,000 Arab traders and a few Indians.¹

Position and General Conditions.—French Somaliland lies on the African coast at the head of the Gulf of Aden, and commanding an important inlet. The climate is exceedingly hot and dry, and the native Somalis are pastoral nomads. Some salt is mined, and there are native fisheries, but the local industries are of little importance, the trade being of an entrepôt character. Practically the whole of the trade of Abyssinia passes through Djibouti, conveyed either by caravan or by the railway (485 miles), which has been constructed to Addis Ababa. The leading outgoing products are hides and skins, coffee, and a little ivory, while the trade inwards is chiefly cotton goods, sugar and miscellaneous hardware for Abyssinia, besides bunker coal, and food-stuffs and clothing for the population of the colony itself. Commanding the outlet of the Red Sea, Djibouti and the secondary port of Obok are very favourably placed as regards shipping facilities. Mails arrive via Aden in 12–14 days. The Banque de L'Indo-Chine has offices at Djibouti, and agencies in London.

¹ For Map see Abyssinia.

*French West Africa.***FRENCH SUDAN**

See **French West Africa**, below.

FRENCH WEST AFRICA

Area and Population.—French West Africa covers over $1\frac{1}{2}$ million square miles (half the area of all the British territories in Africa), and has a population of between 13 and 14 millions, of whom all but a few thousands belong to African races. The European population is about 11,000, of whom seven out of every ten are Frenchmen. More than a third of the whites live at Dakar (total population nearly 30,000), the seat of administration for the whole region, which is under a Governor-General. Dakar is the best equipped deep-sea harbour in West Africa, and is also a fortified naval station. Outside the organized territory, France has possession of the Sahara as far as the borders of Libya and Egypt, the estimated area of which is $1\frac{1}{2}$ million square miles, and its population $\frac{3}{4}$ million; but it is without economic value.

French West Africa thus includes the whole of the southern Sahara and the greater part of the Sudan west of the Nile basin. It extends down to the Atlantic and Guinea coasts at various points, and thus completely surrounds the West African territories of other Powers. It comprises six colonies: (1) Senegal, adjacent to British Gambia; (2) French Guinea, adjacent to Sierra Leone; (3) the Ivory Coast, adjacent to the British Gold Coast; (4) Dahomey, adjacent to Nigeria; (5) Upper Volta; (6) Mauritania, comprising the western Sahara; (7) French Sudan, the inland region of the Sudan, drained by the Niger. With the last region it is also convenient to group (8) the Military Territory of the Niger, which is the part of the Sudan and Sahara to the north and north-east of Nigeria.

The total foreign trade of the whole region exceeds £24 millions (rather under £2 per head of population), but this figure is misleading, since even on the coastal fringes serious development has scarcely begun. Taking the colony of Senegal alone (for which Dakar is the port, and upon which the attention of the Government and traders has been mainly concentrated), the trade is nearly £14 a head, which is greater than that of any part of British West Africa, and suggests the vast potential trade of the whole area when transport facilities are extended and agricultural methods improve.

French West Africa is capable of supplying nearly every variety of tropical food-stuff and raw material to the mother country, and as French territory extends from the shores of the Gulf of Guinea to the Mediterranean coast, the idea of a trans-Saharan railway linking the North African to the West African colonial systems is by no means chimerical. Experimental plantations and agricultural research stations have been established.

By the acquisition under a Mandate of that part of Togoland marching with Dahomey, French West Africa has gained territory to the extent of 22,000 square miles, a population of about $\frac{3}{4}$ million, and a trade which before the War had reached close on a million sterling (and now exceeds that figure), besides the port of Lome, and 204 miles of railway running in three directions through the oil-palm region.

French West Africa.

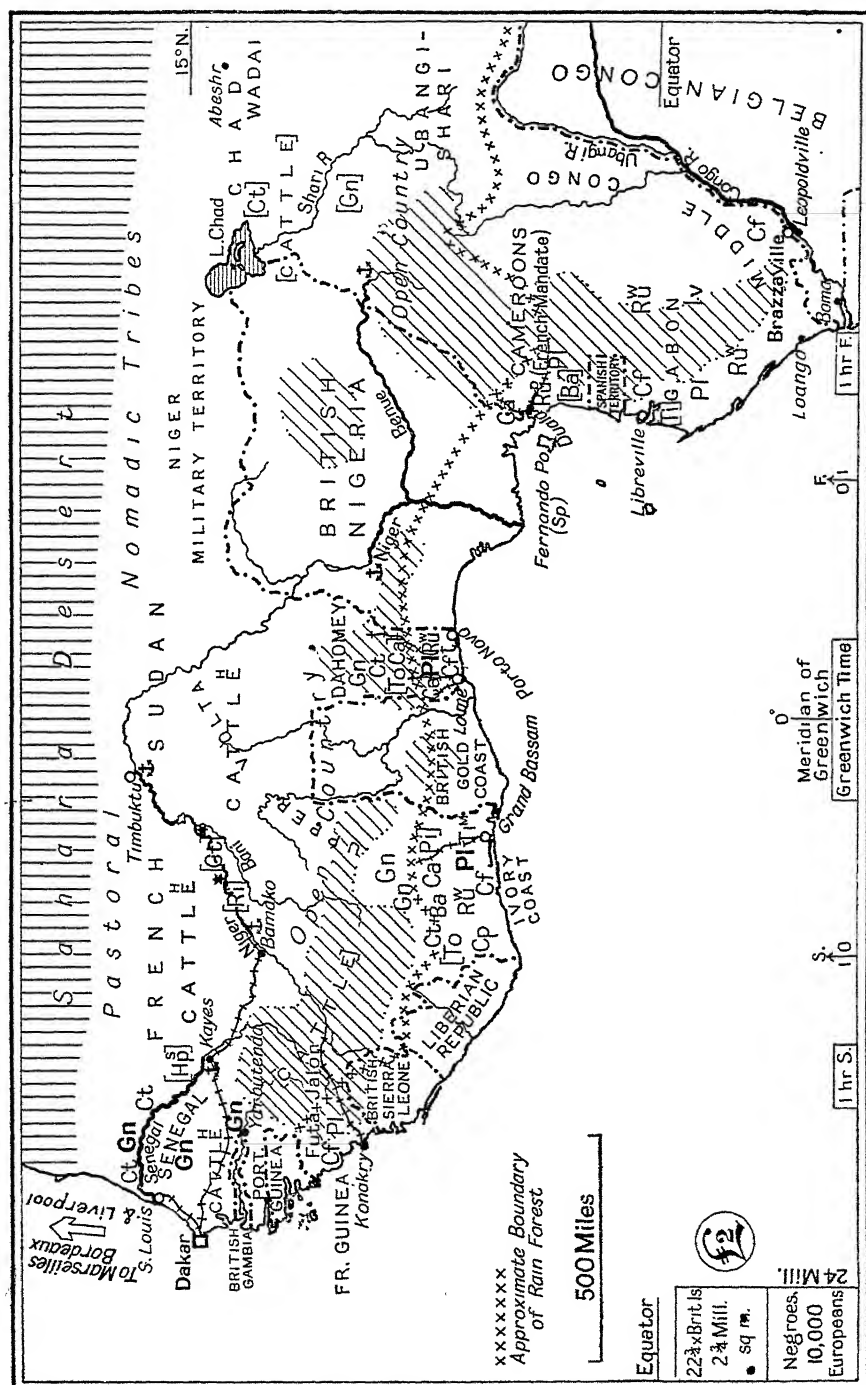


FIG. 45.—FRENCH WEST AFRICA AND FRENCH EQUATORIAL AFRICA. (STATISTICS FOR COMBINED REGIONS.)

Position, Climate and General Physical Conditions.

—French West Africa extends from within 5° N. of the Equator to the tropic of Cancer (approximately), i.e. covers practically the same latitudes as the Indian Dekkan and Ceylon. Like the Dekkan, too, West Africa is a tableland, averaging from 1,000 to 3,000 ft. elevation. The tableland on the whole presents its steepest edge southwards, and slopes gently towards the Sahara. The Futa Jallon highlands, in the interior of French Guinea, rise from 3,000 to 6,000 feet, and the Mossi highlands, in the south of Upper Senegal and Niger, have about the same elevation. Hence the conditions as regards heat are similar to those in southern India, being least trying to Europeans in the elevated regions named. As in India, the sequence of rainy and dry seasons is the most important element in the climate. Along the Guinea Coast the heavy tropical rains continue during at least three-quarters of the year, and the climate is uniformly hot and damp, necessitating strict sanitary and hygienic precautions if health is to be maintained. The rain belt extends northwards as summer advances, until the fringe of the Sahara is reached, retreating again during the autumn. Hence to the north of the belt of prolonged rains is a belt with half the year wet and half dry, and to the north of this again a belt with only a quarter of the year wet and the remainder dry. Finally, in the Sahara, the drought is unbroken, save by occasional storms. The heat is most intense during the latter part of the dry season, before the summer rains. The basin of the Senegal river is the most extensive lowland, where, consequently, the heat is not modified by elevation. The vegetation belts correspond to those of rainfall. Along the south coast are dense forests, in which oil and coco-nut palms, mahogany and other hard woods, and rubber vines are found. Gradually the forest becomes more open, and merges into a rich savannah, where tall grasses predominate, varied by clumps of palms and acacias, baobab trees, and shea-butter trees. As the dry season lengthens northwards, the savannah land becomes poorer, and there are many thorn bushes and drought-resisting shrubs, while the grasses no longer form a continuous carpet.

In the forest belt the tsetse fly is found, and hence cattle cannot be reared: this is a purely agricultural region. In the rich savannahs, where fly imported areas are more local, cattle keeping is combined with agriculture, while in the poor savannahs, cattle keeping becomes the more important, and agriculture more precarious, except where irrigation is possible.

The principal rivers, the Senegal and Niger, both rise in the Futa Jallon highlands. The former flows north-westward and then westward to the Atlantic; the latter flows north-eastward and then south-eastward to the Gulf of Guinea. Together they afford a natural highway from west to east through the western Sudan, which corresponds to the savannah belt.

A series of smaller rivers, flowing from the edge of the tableland southward and westward serve as local lines of communication, and the great lagoons that fringe the Ivory Coast provide an important inland waterway, for owing to the constant south-westerly winds, a heavy surf breaks continuously upon the Guinea Coast.

Human and Economic Conditions.—The pagan negro races of the forest belt practise agriculture, growing such crops as yams, manioc and plantains for their own use. For trade purposes they collect the fruit of the oil-palm, and **palm-kernels** and **palm-oil** are the leading articles of commerce. The greatest output is from Dahomey, through the

French West Africa.

principal trading station Porto Novo (over £1 million) ; there is also a large export from Grand Bassam, the chief port of the Ivory Coast, and from Lome in Togoland, besides a smaller output through Konakry in French Guinea. Forest products of secondary importance are *rubber*, *coco-nuts* and *kola-nuts*, which are collected by the natives. **Mahogany** is exploited under European direction in the Ivory Coast, as it is in the neighbouring Gold Coast. In the more open forest country of Ivory Coast, Togo and Central Dahomey native **cotton** cultivation is being carefully fostered, and *maize* in small quantities is ground by the natives for export, while experience in neighbouring colonies points to *tobacco* and **cacao** as being crops which the native farmers might be encouraged to produce. The plantations of the latter, established under German direction in Togoland, produced nearly 3,000 tons of cacao in 1919, and the output is now over 5,000 tons. Tropical fruits, such as *bananas* and *pineapples*, could also doubtless be grown as money crops. The hoe is the only implement employed, and little use is made of fertilizers, but the agricultural instruction of the natives is receiving Government attention.

European plantations are not extensive, but *coffee* has proved successful in all three of the colonies on the Guinea Coast, and a large *sisal* plantation at Kayes on the middle Senegal suggests a possible new staple.

In the savannah lands, the natives grow millet, maize, and **ground-nuts** for food purposes. The last named is easily grown, and wherever transport is available is cultivated also as a money-crop. It is this product, with an export value of £5 millions, that forms the staple of Senegal (as it does of neighbouring Gambia), and raises the *per capita* trade of that colony to the high figure already mentioned. The total of ground-nuts from French West Africa is about $\frac{1}{4}$ million tons, or 30 per cent. of the world's supply on the market. In the same regions, cattle, sheep, and goats are largely reared on the natural pastures, so that *hides* and *skins*, and live *cattle* are exported, although not on a large scale. The Futa Jallon and Mossi highlands are suited to European settlement, and their farming would probably resemble that of Rhodesia, where horned cattle, maize and tobacco are the staples. The development of the cattle industry, especially by improving the stock and supplementing their scanty food in the dry season, would make it profitable to extract the palm, coco-nut and ground-nut oils at mills on the coast, for a local market would be provided for the oil-cake, as a cattle-food and fertilizer.

In certain parts of the Senegal and Niger valleys the natives grow **cotton**, and the industry is capable of development. Where there is natural inundation during the rains they also grow **rice**, and the region between the Bani and Upper Niger rivers (near the large towns of Segu and Sansanding) is one where, with systematic irrigation, large rice and cotton crops could be grown.

The *shea-butter* tree adds another to the list of marketable savannah products, while *gum arabic* comes from the desert margins.

Trade Relations.—A railway runs from Dakar to St. Louis, at the mouth of the Senegal, and steamers ply on this river as far as Kayes. There is also a direct railway route to Kayes and thence to Koulikoro on the Niger from which point there are small steamers descending the river to Timbuktu during the late summer (high water) season. From Konakry, in French Guinea, a line runs inland for 412 miles to the Upper Niger, and from Kotonu, a port of Dahomey, a line runs inland, and is continued by

Gambia.

a motor road to the Middle Niger. Both road and railway construction are proceeding steadily and many thousands of miles of motor roads feed over 3,000 miles of railway. The various oil-seeds of West Africa go mainly to Marseilles and Bordeaux, and to a less extent to Britain and the United States. Cotton goods form the largest item imported (over £2 millions), and more than half come from Britain, France having the second place. Wines, spirits, sugar, tea, rice, and miscellaneous food-stuffs for the European and seaport populations make up a total of nearly £1 million, and there is a growing demand for tools, implements, cutlery, machinery and metal goods generally. Motor-cars are supplied from France. British exports going directly to the French West African Colonies average £2 millions.

Dakar is the only good port, and can accommodate the largest vessels.

General Information.—The use of French weights and measures (the metric system) and money (the *franc* as unit) is compulsory throughout French West Africa. The French Bank of Africa does business throughout the colonies. From Dakar a cable runs to Brest, while Timbuktu and Bamako are in wireless communication with Paris. The telegraph system is very complete throughout the colonies. Mails from England take 11-14 days to reach Dakar, which is in regular communication with Liverpool. There is a British Consul-General at this port.

FRENCH WEST INDIES

See **Guadeloupe**, p. 238, and **Martinique**, p. 303.

FRIENDLY ISLANDS

See **Tonga**, p. 423.

GABUN

See **French Equatorial Africa**, p. 188.

GALAPAGOS ISLANDS

See **Ecuador**, p. 160.

GALICIA

See **Poland**, p. 357.

GAMBIA

Area and Population.—The British Colony and Protectorate of Gambia is administered by a Governor. The actual colony comprises the Island of St. Mary on which Bathurst stands, with a population of 8,000, while the Protectorate, a narrow strip on either bank of the Gambia River, covers

Gambia.

4,500 square miles, and has a population of 200,000, mainly pagan negroes. The average trade is a little over £2 millions (one million each way), or £10 a head, the colony being for its size a prosperous one. Europeans number under 200. A small proportion of the natives have received an elementary English education.

Position, Climate and General Physical Conditions.

—Gambia lies between latitudes 13° N. and 14° N. of the Equator in West Africa, on the margin of the equatorial belt, and has a very hot rainy climate for five months in the year (June to October), followed by seven months dry weather, during which conditions are more healthy and pleasant. The country is, owing to this prolonged drought, only lightly forested, and there is much grassland. Mahogany, oil-palms and rubber are found, but not in the same abundance as they occur in the dense forests of

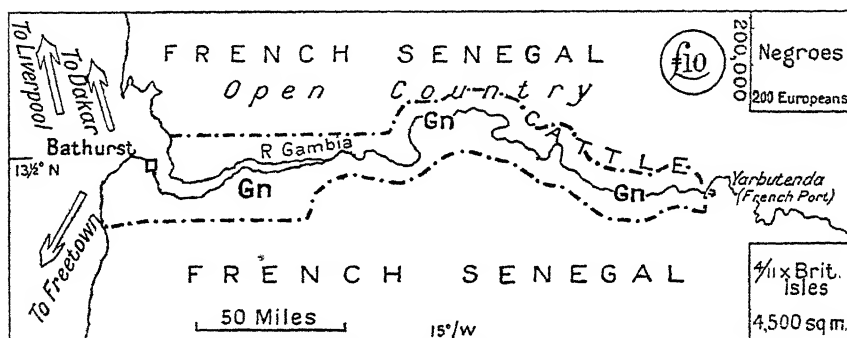


FIG. 46.—GAMBIA.

the Guinea Coast. The river Gambia flows from east to west through the colony and enters the Atlantic Ocean about 100 miles south of Cape Verde.

Human and Economic Conditions.—The people of Gambia are negroes who engage in hoe agriculture, cultivating maize, millet and rice, and keeping cattle, sheep and goats. The only crop grown for trade purposes is **ground-nuts**. These form the staple product of the country, representing 90 per cent. of the value of the total export trade, the output being 70–80,000 tons. Some 20,000 immigrant farmers come annually from neighbouring territories to cultivate them during the season, i.e. from June to November. The balance of exports is made up of *hides* and small consignments of *palm kernels* and *piassava* (brush fibre), the latter growing wild along the river banks.

Trade Relations.—As Bathurst is not a port of call for the main steamship lines to Africa, a considerable proportion of trade goes through Dakar in French Senegal or through Sierra Leone. Although War conditions led to a decrease in the trade handled by France, and an increase in that of Great Britain and the United States, the last decade has seen France recapture the leading position. The bulk of the ground-nut crop goes to Marseilles, although Great Britain, Germany and Holland are also buyers, while France supplies soap, sugar, Saigon rice, articles of apparel, tools and hardware. Great Britain still has the greater part of the trade

Germany.

in imported cotton piece-goods and yarn, while kola-nuts (for chewing) are imported from British Sierra Leone.

General Information.—The special West African silver currency circulates in Gambia, and the French five-franc piece is legal tender at a fixed value. The Bank of British West Africa does business in the colony. There is a fortnightly mail service from Liverpool to Bathurst (transit 12–15 days), and cable connection with Cape Verde Islands. Air mail takes 10–11 days. There are no inland railways or telegraphs, but the river Gambia is navigable throughout the country and communication is by steamers and motor-launches. The Receiver-General, at Bathurst, acts as Imperial Trade Correspondent.

GEORGIA REPUBLIC

See **Trans-Caucasia**, p. 424.

GERMANY

Area and Population.—The German Republic, established in 1918 (including the Saar), has an area of about 182,000 square miles ($1\frac{1}{2}$ times the British Isles), supporting a population of 63 millions ($1\frac{1}{4}$ that of the British Isles), 52 per cent. of these being females. The losses by the Peace Treaty involved territory equal in area to Ireland, together with nearly 8 million people. The most serious of these losses was the mining and manufacturing region of Alsace-Lorraine, while the provinces of Posen and West Prussia, ceded to Poland, were valuable since they produced food-stuffs and live-stock in excess of their needs; the lost section of Upper Silesia, too, was an important mining and industrial centre. As regards cities, the chief losses were that of Strassburg, a great traffic centre in Alsace, and of Danzig, a valuable seaport for East Baltic traffic: the combined population of these cities equalled that of Bristol. The withdrawal of the Grand Duchy of Luxemburg from the German Customs Union also represents a considerable commercial loss, since the Duchy is a great iron-working centre.

Germany has no great centre of population comparable to London or New York. Greater Berlin, with 4 million inhabitants, including the suburbs of Spandau, Charlottenburg, and Potsdam, is now, however, larger than Paris: Hamburg, the leading seaport, standing on the Elbe estuary, is comparable in size with Liverpool, having about a million inhabitants, to which the adjoining towns of Altona and Harburg add another $\frac{1}{4}$ million. The next group of towns are all inland centres, having each rather more than $\frac{1}{2}$ million people, i.e. they are about the size of Leeds or Sheffield. They are: Munich, the capital of Bavaria and chief city of South Germany; Dresden, the capital of Saxony, and Leipzig, the great trade centre of the same State; Cologne, on the Rhine, Breslau on the Oder, and Frankfort-on-the-Main. The importance of each of these cities dates long before the industrial era in Germany: all are centres of culture, Dresden alone being not a university city, and it is owing to their long-standing importance, and their association

Germany.

with handicrafts, that they have attracted to themselves great modern industries, although lying away from the coal-fields. Comparable in size with Nottingham and Leicester are Stuttgart and Nuremberg, two ancient south German cities, which have likewise become associated with modern industry. Of large towns which owe their growth to the coal-fields, Essen (470,000) stands first, situated together with Dusseldorf (433,000), Duisburg, Dortmund, Gelsenkirchen, Barmen, Elberfeld, Bochum, Mülheim, Hamborn, and Crefeld on the Ruhr Basin or Westphalian coal-field, the chief seat of German industry and prosperity. Chemnitz and Plauen have a similar association with the Saxony coal-field, while Saarbrücken is the centre for the Saar coal-field at present in the possession of France. All these towns have from 100,000 to 300,000 inhabitants. Other towns of importance are Hanover, standing at an important crossing-point of north to south and east to west traffic; Magdeburg, the chief up-river port of the Elbe; Mannheim (with on the opposite bank Ludwigshafen) and Mainz, two leading Rhine ports; Aachen, a city of ancient importance, and now a centre of modern industry, standing on a small coal-field near the Belgian-Dutch frontier; Augsburg, an industrial centre of Southern Bavaria; Brunswick, the capital of the State of that name; and Halle, a centre for the industrial region of Prussian Saxony. The secondary ports of Germany, corresponding in character to Hull and Newcastle, are Bremen, with American connections, on the Weser; Stettin, the nearest port to Berlin, on the Oder; Königsberg, the most easterly port, in the now-detached province of East Prussia; Kiel, at the Baltic end of the great ship-canal; Lübeck (like Hamburg and Bremen once a Free Hansa City), also a Baltic port, and having canal connection with the Elbe. Altogether there are 46 cities with over 100,000 inhabitants.

There is no State Church in Germany: Protestants are in the majority as regards the total population, but Roman Catholicism is the prevailing religion in the southern States. Education is general and compulsory throughout the country, and is more systematized and thorough than in the British Isles, producing a higher level of efficiency, although at the expense of independence and initiative. The proportion of students receiving university education is much higher than in Britain, namely one out of every 700 of the population. In addition, many thousands of German students are enrolled at the Technical Schools for mining, agriculture, forestry, commerce and so forth, which are very well organized and equipped.

Recent figures as to the distribution of occupations in Germany are not available, but as far back as 1907 the proportion was 50 per cent. engaged in mining, industry, commerce or the learned professions, as against 33 per cent. occupied on the land, i.e. broadly speaking, in the production of food-stuffs. With the recent rapid growth of industry, the proportion on the land has relatively declined, and although the German farmer produces more food per acre than the British farmer, the country is under the necessity of buying large quantities of food stuffs and raw materials abroad, which must be paid for in manufactured goods. Of the total imports in 1913 (the last pre-War year) over three-fourths came under this category, while 72 per cent. of the exports were of manufactured or semi-manufactured products. The trade for that year amounted to £1,030 millions, or nearly £16 a head, as compared with a British trade of £1,300 millions, or £28 a head in the same year. Imports were in excess of exports by between £30 millions

Germany.

and £40 millions, the deficit being made up by "invisible exports" in the shape of shipping freights, banking and insurance, and money invested abroad.

To-day actual manufactures (not including semi-manufactures) make up only 20 per cent. of the imports but over 70 per cent. of the exports. The total trade rose from over £1,200 millions in 1927 to over £1,300 millions in 1928 and 1929, i.e. it is now about £21 a head. Imports were over 10 per cent. in excess of exports during these particular years, but the figures exclude export in kind on the reparations account.

Position, Climate and General Physical Conditions.

—Germany extends from 47° N. to 55° N., and from 6° E. to 23° E. and marches with the following States: Denmark, Holland, Belgium, Luxemburg, France, Switzerland, Austria, Czechoslovakia, Poland and Lithuania. In the north-west the country opens to the North Sea, and in the north to the Baltic, the latter seaboard being very much the longer. The British Isles interpose a barrier between Germany and the Atlantic Ocean, so that the climate is more Continental, i.e. on the whole more extreme, more stable, and drier, than in Britain. The summers are everywhere hot, though not excessively so, and the fact that the southern part of the country is somewhat elevated renders the shade temperatures there no greater than those farther north, although greater heat is experienced in the sun and in the valleys. The winter temperatures decrease from west to east, and are somewhat severe in that part of the country which lies south of the Baltic Sea, all the waterways being frozen for an average of two or three months. The rainfall occurs chiefly in the summer months, and is very moderate except on the hills and uplands, where it reaches from 30 to 60 inches.

Germany may be broadly divided into three regions—the Northern Plain, running from the frontier of Holland eastwards; the Rhine Valley and Rhine Mountains in the west; the broken hilly country stretching from the Alps northwards to Thuringia, i.e. South and Central Germany. The last named includes somewhat bleak and barren plateaus and hill ridges, and a large number of fertile and warm valleys. The rivers draining it include the Danube, which flows eastwards into Austria, and receives a great many swift-flowing affluents from the Alpine snowfields: the Neckar and Main, which follow deep zigzag valleys, and eventually join the Rhine; the Werra and Fulda, which are head-streams of the north-flowing Weser.

The Rhine River, from Basel on the Swiss frontier to Mainz, flows in the middle of a broad trough-shaped valley—the floor being very fertile. The Vosges and the Lesser Vosges on the one hand, the Black Forest and Odenwald on the other, form the somewhat abrupt walls of the trough, a part of which (Alsace) is now lost to France. Baden, part of Hesse, and the Palatinate are the political subdivisions of this trough region. Leaving Mainz the Rhine makes an abrupt turn and enters the gorge which it has worn through the Rhine Mountains, emerging again at Bonn, and flowing over the Northern Plain and thence through Holland. The Rhine Mountains—actually rather a plateau than a mountain region—are cool, wet and infertile, but they are trenced not only by the Rhine, but by its tributaries, the Lahn and Moselle; on their borders, too, are regions rich in coal and iron.

The continuity of the Northern Plain is broken only by the low ridges which somewhat isolate Westphalia, and by the Harz Mountains. The whole region once lay under the ice-sheet of the Glacial Age, and consequently

Germany.

is covered with glacial waste, in part gravelly and infertile, in part ill-drained boulder clay. Hence large areas are unsuited to cultivation and are clothed with forests or heather. Towards the south, however, richer and more tractable soils occur, and agriculture takes on great importance. The important river Elbe flows diagonally across the plain to the North Sea, while the almost equally important Oder, which drains Silesia, takes a parallel course, until at a point not far from its estuary it bends sharply to the Baltic. Such is the configuration of the Plain, however, that it has proved easy to unite the Oder by canals to the Elbe farther west, and the Vistula (now a Polish river) farther east. The Weser and the Ems, both flowing to the North Sea, are smaller rivers and of less value as waterways, but both have now canal connection with the Rhine, although not with the Elbe.

Not only on the northern plains, but also on all the uplands and mountain slopes, there are valuable forests, both of hardwoods (oak, ash, beech) and of softwoods (pine, fir, larch), covering altogether some 50,000 square miles. They are scientifically exploited under State supervision, so that the net expenditure on foreign timber (chiefly from Russia, Finland, Sweden, Austria and Bohemia) was only £19 millions in 1913, or little more than half that expended by the smaller population of the British Isles. The present figures are £26 million expended by Germany, as against £46 by Great Britain and Northern Ireland. Especially valuable are the forests of the Rhine Mountains, Spessart, and Odenwald, situated near the great industrial region of Germany.

Human and Economic Conditions.—The greater part of the land in South and West Germany is broken up into small farms or peasant holdings, which are intensively cultivated. Larger farms are found on the northern plain, and especially in the north-east, the stronghold of the Junkers. The Peace provisions involved a loss of at least 13½ per cent. of the cultivated area, which has passed to other States. This included 20 per cent. of the beet-fields (chiefly in Posen), together with the rye and potato fields of the same province; and also 24 per cent. of the vineyards (chiefly in Alsace-Lorraine) and the barley-fields of all these districts. As regards animals, 15 per cent. of the horses were bred on the territory now lost (chiefly in Posen), 11 per cent. of the horned cattle, 9½ per cent. of the sheep and 11 per cent. of the pigs. These figures must, however, be considered in relation to the loss at the same time of 12 per cent. of the population consuming animal and vegetable products.

The most productive agricultural areas remaining to Germany are the belt lying to the south-west of the Elbe, running from the Erz Gebirge to the city of Brunswick, and including the fertile Magdeburg Basin; a similar belt to the south-west of the Oder in Silesia; the Rhine Valley and the Palatinate above the Rhine gorge; and the valleys of South Germany.

Of cereal crops, **rye**, which is the staple breadstuff of the poorer classes, is the most important, although, quite apart from territorial changes, there has been a marked decrease of acreage, consequent on changes of dietetic habit. In 1928 the yield was 7½ million tons, or 60 per cent. only of the crop of 1913. In the last-mentioned year, however, there was a considerable export, whereas in 1928 there was an import of some 300,000 tons from the United States. Rye is grown widely on the northern plains, whereas the more exacting **wheat** is especially important in the Magdeburg Basin, in

Germany.

parts of Silesia, and in the Rhine and Danube valleys; the 1928 crop was $3\frac{1}{2}$ million tons, or 75 per cent. of that of 1913, and there is a large import from the United States and Argentina. **Barley** (normally for malting) is grown chiefly in the southern States, the yield being nearly 3 millions tons in 1928, which was 75 per cent. of that of 1913. **Oats** are widely grown, but, as in the case of rye, the harvest is only 60 per cent. of that of 1913

(which was an exceptionally good year for nearly every class of crops).

The chief root crop is **potatoes**, which are grown not only for food, but for the large-scale manufacture of *starch* and *alcohol* (chiefly brandy). The 1928 harvest was about 41 million tons—75 per cent. of the pre-war yield, and it is supplemented by an import of nearly a million tons from Holland, West Poland and Denmark. The most productive areas are the Magdeburg district, Saxony, Silesia, and the Rhine valley, but the cultivation is very widespread. Even more important than the potato crop from the point of view of home food supply is that of **sugar-beet**, of which about 11 million tons were harvested in 1928 as against an average of 13–14 million tons before the War. The

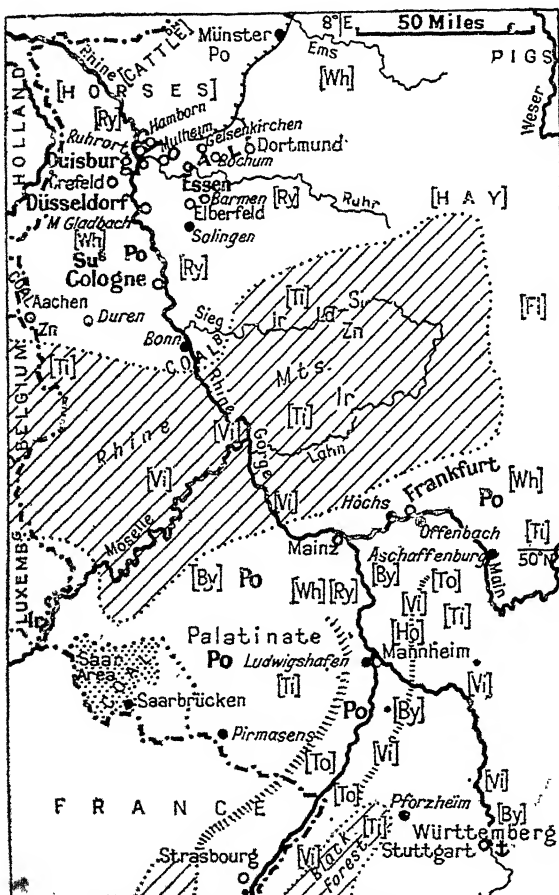


FIG. 47.—THE RHINE VALLEY.

areas of intensive cultivation are the Magdeburg Basin and Lower Silesia, and the high perfection to which the root is brought is evidenced by the fact that beetroot seed to the value of £ $\frac{1}{2}$ million was exported to the United States in 1920. The yield of raw sugar from the 1928 crop (at 16 per cent.) was nearly $1\frac{1}{2}$ million tons, of which very little was available for export. The export value of German sugar before the War was about £13 millions (including raw sugar £5 millions), and nearly half of the quantity sold was sent to Great Britain.

Germany.

A crop of secondary importance is **hops**, grown chiefly in Bavaria and Württemberg (i.e. in the south), which yielded nearly 7,000 tons in 1928; before the War the production was more than double this figure, and about 4,000 tons of hops were exported to France, Belgium and the United States, this coming partly from the lost province of Alsace. The South German hops and barley give rise to an enormous *brewing* industry, including the famous beers associated with the city of Munich. **Tobacco**, grown in the district north of Berlin and in the middle Rhine valley, yielded 20,000 tons in 1927. This is supplemented by a considerable import, which amounts to nearly 80,000 tons, a large proportion coming from the Dutch East Indies, while Greek, Bulgarian, Turkish and Dominican tobaccos are also bought. Bremen handles this foreign tobacco. *Vineyards* are found on the terraced slopes of the Rhine and Moselle gorges, in the middle Rhine valley (Baden), and in the valleys of the Neckar and the Main. Altogether agriculture plays a much more important part in Germany than it does in the British Isles. In the latter, more than half the cultivated area is under permanent pasture, leaving less than half an acre of arable land per head, as against $\frac{2}{3}$ acre per head in Germany. In France, which is broadly speaking self-supplying as regards major food-stuffs, the average is $1\frac{1}{2}$ acres per head.

The very considerable hay, clover and root crops of Germany have been greatly increased since the War, and support large numbers of live-stock, the *cattle* being usually stall-fed. *Sheep*-breeding has very seriously declined, the numbers being now barely 4 millions, but on the other hand there has been an increase in the number of *pigs* bred, the total of 20 millions being little short of the pre-war figure on a larger territory. Horned *cattle* (18 millions of which half are milch cows), *horses* and *goats*, too, are reared in relatively greater numbers than before 1914.

The *fisheries* of Germany are not very valuable, the pre-war catch being worth only one-tenth that landed on the coast of Britain. The quantity landed is now about one-fourth that landed in Great Britain, six-sevenths coming from the North Sea, and one-seventh from the Baltic Sea. Fresh and salt herrings are imported on a large scale from Norway.

The mineral wealth of Germany consists chiefly of **coal**, the bulk of the iron ore supplies being lost.

The leading coal-field is that in the Ruhr basin—the Westphalian coal-field—lying on the right bank of the Rhine, and on the northern flank of the upland mass described as the Rhine Mountains. This field formerly produced 60 per cent. of the total output. Next in importance, until 1918, was the Upper Silesian coal-field, lying on the Polish frontier, and assigned partly to that country in 1921, which produced 23 per cent. of the total, while the Saar coal-field, which is in the hands of France until 1933, produced 6–7 per cent. Thus the Saxony coal-field and the small fields of Lower Silesia, Aachen and Bonn together accounted for only 10 per cent.

In 1913 the total hard-coal production was 190 million tons, a further 11 million tons was imported, and 44 million tons exported, leaving for home use a total of 157 million tons. In 1928 the output from the reduced fields was nearly 151 million tons (not including 12 million tons from the Saar), a figure which had been surpassed by $2\frac{1}{2}$ million tons the previous year.

To the present resources of hard coal must, moreover, be added the large output of the lignite beds, which have been more systematically worked during

Germany.

and since the War. The chief lignite area is the region lying on the left bank of the Elbe and extending through Altenburg, Leipzig, Halle and Brunswick, already described as of great agricultural importance. From this region over 60 per cent. of the total output is obtained. In addition there are important beds in the Rhine Valley near Bonn, producing over 25 per cent. of the total, while there are smaller fields in Bavaria and Lower Silesia. The total production of brown coal in 1920 was 115 million tons, against 87.2 million tons in 1913—an increase of over 30 per cent., while by 1928 it was 166½ million tons, an increase of 90 per cent.

The increased use of lignite has involved a modification of industrial

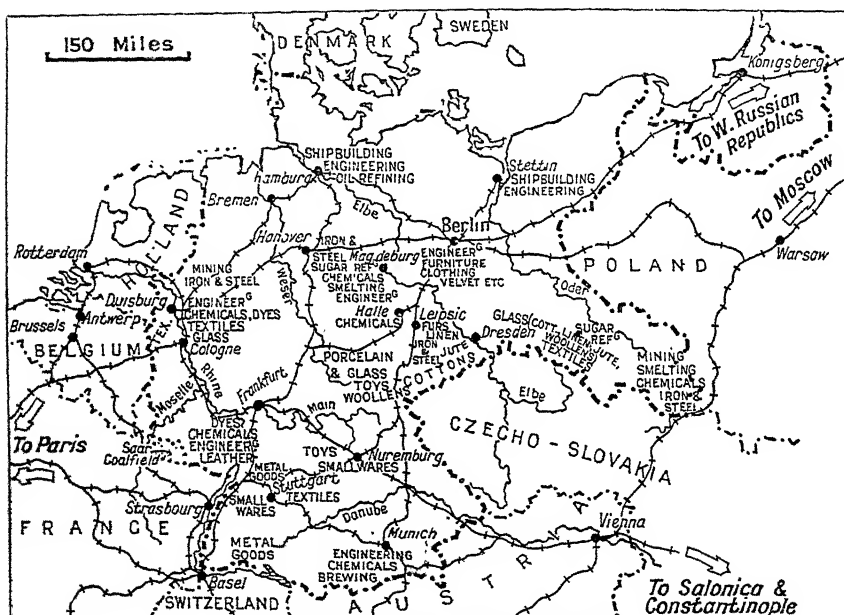


FIG. 48.—GERMANY: MANUFACTURES.

plant, and a recent questionnaire showed that 50 per cent. of the sugar factories and refineries (which are largely situated in the chief brown coal area) had been adapted to lignite firing.

The output of coke for 1928 was 34 million tons (as against about 20 million tons in the British Isles), nearly all the valuable by-products being recovered. Briquettes from coal reached a total of 5 million tons, and from lignite a total of 40 million tons—the latter figure being a great advance on that for 1913. The important coking and by-product plant of Rybnik and district passed to Poland in 1921, but the large coke-oven plants in the Ruhr are not used to capacity.

There are important **copper** mines in the Harz Mountains, the chief works being at Mansfeld, while there is also a small production in the Rhine Mountains. The ore mined amounts normally to nearly a million tons, from which nearly 27,000 tons of crude copper are obtained. **Zinc** is

Germany.

also important, the chief mines being at Beuthen in Upper Silesia, which produces about $\frac{3}{4}$ million tons of ore; there is also a small production near Aachen, and at Bergisch-Gladbach, near Cologne. The Upper Silesian frontier award placed the mines east of Beuthen (producing a further $\frac{1}{4}$ million tons) in Poland, besides all the smelters and refineries, which are situated at Kattowitz and Königshütte. *Silver-lead* is mined with the zinc, *nickel* in the Rhine Mountains, and *pyrites* (for sulphuric acid) in many districts, besides small quantities of *wolfram* and *graphite*. These home supplies of ore form the basis of an important smelting industry, being supplemented by imports from Sweden, Austria, Czechoslovakia, the Near East, and Spain.

Rock **salt** is obtained at Clausthal in the Harz Mountains, and near Halle, the quantity being over 2 million tons, of which half is exported. Between the Harz Mountains and Elbe are the world-famous Stassfurt deposits of **potash** salts, of which Germany once held a virtual monopoly. The output in terms of pure potash (K_2O) is about $1\frac{1}{2}$ million tons, of which 60 to 70 per cent. is consumed in Germany, largely as chemical manure, only some 4 to 5 per cent. being employed in industry. The output from the Alsatian mines transferred to France is only 10 per cent. of that of the German mines, and as a working agreement with respect to prices has been entered into, the monopoly will not be broken. The German reserves are ample for an indefinite period.

It was with regard to **iron** ore that Germany was most seriously crippled by the Peace terms. Three-fourths of her ore supplies came from the famous minette fields of Lorraine, and another 5 per cent. from the similar fields in Luxemburg. The output for 1913 was $28\frac{1}{2}$ million tons, of which only 5 millions came from territories now remaining to Germany. The Siegerland, Lahn, and Dill mining areas, in the eastern block of the Rhine Mountains, and the Peine-Salzgitter district, west of Brunswick, can together produce over 6 million tons, but this is only 30 per cent. of Germany's requirements. The Peine-Salzgitter deposits are highly manganiferous.

With ample supplies of coke and ore the German **iron** and **steel** industry was based on the mass production of pig-iron and raw steel, the pre-war figures for these products being 13 million tons and 18.9 million tons respectively, i.e. about twice the output of the British Isles. Roughly 40 per cent. of the pig-iron production and 30 per cent. of the steel production was in the now lost Luxemburg-Lorraine-Saar areas, while two-thirds of the producing plant of Silesia has passed to Poland. There has, however, been a marked relative increase of output in the areas remaining to Germany, the figure for pig iron (largely from French, Luxemburg, Swedish and Spanish ores) being $11\frac{1}{2}$ million tons in 1928, and that for crude steel being $14\frac{1}{2}$ million tons. Düsseldorf, Essen, Ruhrort and Duisburg have the greatest number of blast furnaces, while electric furnaces are most numerous at Remscheid and Bruchhausen, near Solingen.

Every branch of the steel industry is well developed, and there is normally a large export trade in steel sections and girders, rolled sections and plates, rails, tubes, wire rods and nails, hollow metal, tin-plate, ferro-alloys (the last from Crefeld, and the neighbouring village of Willich, and from Frankfort). Great engineering workshops are found, not only in the industrial areas of Rhineland-Westphalia, Saxony and Upper Silesia, but in all the large towns and seaports which have been already enumerated. It

Germany.

centres are on the Ruhr (Barmen and Elberfeld), in Silesia (Breslau, etc.), besides scattered factories in Munich, Frankfurt-a.-M., and other great cities. Exports are valued at £10 millions.

The **linen**, hemp and jute industries are carried on on a relatively small scale in the chief textile areas (notably Silesia and the Vogtland), and at Bielefeld in Westphalia, and considerable effort was made to increase the home supplies of coarse fibres during the War. Home-grown flax supplies about one-third of the consumption, and further quantities are obtained from Belgium, Russia, Lithuania and Latvia. Italy supplies all the hemp, and India the jute consumed.

The **chemical** and **dyestuffs** industry is one in which Germany has long been pre-eminent, the country possessing large supplies of basic materials in the shape of potash and other salts, and the by-products of the coking ovens. The original discovery of coal-tar dyes was made by the English chemist Perkin, but it was not followed up in that country. Synthetic indigo, on the other hand, was a German discovery. The chemical industry occupied 180,000 workers in 1913, of whom 60 per cent. were in the Rhine basin, between Ludwigshafen (the Badische-Anilin and Soda-Fabrik) and Essen. There are huge works at Leverkusen, near Cologne, and important factories also at Elberfeld, at Hoechst-on-the-Main, and at Frankfurt-on-the-Main. This region is, of course, situated in proximity to the coking ovens. A second region of importance is that in which the salts are produced, viz. the middle Elbe basin, notable centres being Merseburg, Schönebeck and Stassfurt. There are also large chemical works in Silesia, and at Munich and Burghausen in Upper Bavaria, where Alpine water-power is available. Not only in respect of heavy chemicals, fertilizers and dyestuffs is Germany pre-eminent, but also in respect of pharmaceutical products and laboratory materials, in which a high degree of purity is required. The pre-war export of chemical and pharmaceutical products was valued at nearly £50 millions, and in 1928 it reached a total of £23 millions, it being noteworthy that the British Isles and the United States were leading buyers.

The **pottery** and **glassware** industries, depending largely upon chemicals and chemical research, are naturally important in Germany, and are carried on in very many districts, notably in the Central German Uplands, including Upper Franconia, the Upper Palatinate, and Thuringia, where, at Jena, the finest laboratory glass is made. Window and plate glass is made in the Ruhr district, and watch-glasses, formerly made in Alsace, are made in Halle. Breslau, Stuttgart and Zwickau are notable for decorative glass, Berlin, Meissen and Munich for porcelain.

It is the glass industry that is the more important as regards external trade, glass bottles, glass beads, lamp-chimneys, table and fancy glass, and metal-filament lamps being exported in large quantities. The value of these was £10 millions in 1928, as against £5-6 millions in 1913. Great Britain and the United States are important buyers of German glass and porcelain.

Paper is manufactured on a large scale, the well-managed forests supplying abundant raw material readily supplemented from the Baltic lands. The mills are therefore usually situated on the margins of the wooded uplands, where both wood pulp and clear water are available. For example, Düren, between Cologne and Aachen, is an important centre, and there are several mills at Aschaffenburg, standing at the foot of the Spessart. The output of 2 million tons is sufficient for home consumption, and furnishes

Germany.

an important minor export, valued at £18 millions in 1928, as against £10 millions in 1913, although when such comparisons are made, the rise in prices must be borne in mind.

The **leather** industry is carried on on a large scale, great quantities of hides and skins being imported, while dressed leather (including glacé leather, sole leather, and patent leather) is exported to the value of £13 millions. The export of finished leather goods is not very great (£5 millions), it includes saddlery, harness and fancy goods. Pirmasens, in the Palatinate (Pfalz), is the chief centre for boots and shoes (mainly for German consumption), and Offenbach, in Baden, for fancy leather goods, of which 75 per cent. goes abroad.

Another notable industry, furnishing a considerable export trade, is that of *toys*. This has developed from a peasant handicraft carried on in remote or poor regions, and is centred in the hilly districts of Central Germany, notably at Nuremberg, in the Erz Gebirge, and in Sonneberg, Thuringia. *Musical instruments* are also a German speciality, there being a very large home demand, while there is a flourishing export trade in pianos. *Clocks* and *watches* are made in the Black Forest and elsewhere. Optical, astronomical, geodetic and mathematical *instruments of precision* of the best quality come from the German makers who lead in this industry, working in close co-operation with the leading scientists. The chief factories are consequently found in the University towns.

The European **fur** industry centres in Germany, Leipzig being the principal market, rivalled only by London. The washing, dressing, machining and dyeing of foreign and overseas skins is carried on, these coming from all parts of the world, including especially Russia and Siberia. The same city is also a noted centre for *printing* and *lithographic work*—industries for which Germany has a very high reputation. Lithographic stones are the monopoly of a quarry near Solenhofen, Bavaria.

Germany is a very large importer of *colonial wares*, either directly or through London (Britain sent approximately £20 millions worth of foreign and colonial produce to Germany in 1913, while in 1921–28 the figure has averaged £26 millions). These wares include coffee and cacao (Hamburg being the chief port of entry), oil seeds and rubber. Much of this produce was diverted to New York during the War, but with the restoration of the Hamburg shipping services, the trade flowed back into the old channels. The trade in **oil-seeds** is one of the most important. The 1913 import was valued at nearly £27 millions, linseed (from Argentina and India) taking the first place, followed by copra and palm oil, while smaller consignments were bought up of ground-nuts, rape and sunflower seed, cotton seed, sesame and soya beans. To-day it is worth over £40 millions, and includes large purchases from China and from West Africa. A considerable *soap* industry was built up on the basis of this import (the cessation of supplies being keenly felt during the War), and there is also an export trade, valued at £5 millions, in refined vegetable oils. **Rubber** imported in 1913 was valued at £6 millions, the net import (deducting re-exports) being 16,000–17,000 tons. The consumption of raw rubber has now more than doubled, but the export of rubber goods, including tyres and goloshes, is not great.

A feature of German industrial life since the War has been the formation of large industrial groups by which a large number of interdependent industries are brought under a single management. The Sichel Industrial Group

Germany.

is typical, having as its object the production, working up and merchandising of iron and metals, chemical and metallurgical products, to which end it has obtained a controlling interest in lignite mines, iron-ore deposits, chemical works both in Germany and abroad, iron works, Rhine shipping, and so forth. Herr Stinnes, the shipping magnate, had control of a similar range of enterprises on a still vaster scale, but owing to the commercial and other conditions obtaining, this group eventually proved unwieldy and was broken up in July, 1925. To-day the tendency is for "horizontal" and not "vertical" syndicates, i.e. for combines in the same industry, and not in a linked range of industries. Ten years have shown that although the country has been deprived of material resources, German skill and business ability remain unimpaired, and are an asset of first importance.

Trade Relations.—The main point of importance with regard to the direction of German export trade is that, as regards three-fourths, it is with Europe, and the severing of overseas connections during the War brought the proportion up in 1920 to over four-fifths. About 25 per cent. of the extra-European trade is with the United States, but in this market before the War Great Britain sold £5 millions worth more of goods than did Germany. Only to the extent of 17 per cent. of her total trade, or say goods the value of £70–80 millions, did Germany ever compete with the British Isles in respect to tropical and colonial markets. In 1913, however, Great Britain was herself Germany's principal customer, taking 14 per cent. of her goods, of which import something like £70 millions represented manufactured goods. In return British goods (not including re-exports) to the value of only £40 millions went to Germany (largely owing to tariff restrictions). On the other hand, German purchases in tropical and colonial markets are more than double her sales there, e.g. in 1927 purchases from British India of essential raw materials—oil-seeds, hides, jute and cotton—were valued at over £26 millions, and sales there amounted to only £12 millions. Previously to the War, Austria-Hungary ranked next to Britain as a market for German goods, taking 11 per cent. of the total, France was third, taking 7½ per cent., the United States fourth, and the Netherlands fifth (nearly 7 per cent.) To-day Great Britain and Holland each take about 11 per cent., the United States 7 per cent., Czechoslovakia and Switzerland each about 5 per cent., Russia, Austria, Italy and Belgium from 3–4 per cent. apiece, and France less than 2 per cent. Nearly half the total is consigned to widely scattered small markets, such as those of the Latin American countries which are receiving careful attention from Germany.

The policy of Germany as of Great Britain must be to concentrate on the production and marketing of such classes of goods as demand the highest degree of skill, efficiency and organizing ability in the producers, since neither country has the vast material resources of the United States, or the mass of cheap labour of Japan and the Far East. Hence competition between the two nations must become even keener, especially in British and European markets. The German Government is taking steps to foster export trade, and to assist in the establishment of new markets, especially in the Near and Far East, while higher tariffs aim at the exclusion of foreign manufactures. Such a policy involves very high prices to the home consumer.

Of Germany's imports, 15 per cent. come from the United States, which supplies nearly the whole demand for raw cotton, crude copper, mineral oil and lard, besides a considerable proportion of wheat (including some Canadian).

Germany.

Argentina is next in importance, supplying 7 per cent. of the total, the large categories being maize, wheat, raw wool, linseed, meat and hides. Great Britain has the third place (6 per cent.), chiefly in virtue of supplying cotton and woollen yarns and (re-exported) raw wool. France stands fourth, supplying especially woollen yarn, cotton fabrics and raw wool, while the Netherlands follow with large quantities of butter, cheese, eggs, vegetables and meat. The leading import from Czechoslovakia is timber, from Belgium raw wool (a re-export), from British India oil-seeds, from Italy raw silk, and from Russia furs.

As regards European trade, Germany has the very obvious advantage of position, marching as she does with no fewer than ten different States, lying on the great through routes to the east and south-east, and having a Baltic seaboard from which to develop trade with five other States bordering that sea. On the re-organized State-owned railways (profits from which go to the Reparations account), freights have been adjusted so as to favour home production, and a further asset is the useful system of internal waterways. In 1912, 93 million tons of goods were water-borne (as against 30 million tons on British inland waterways), of which 40 million tons crossed the frontiers, mainly going in and out of Holland by the Rhine. It is on this river that the traffic is greatest, since vessels of over 1,000 tons can ascend as far as Mannheim, an enormous volume of traffic being handled at Duisburg, the port for the Ruhr coal-field and industrial region. The Neckar is being canalized from Mannheim to Heilbronn. Next in importance is the Elbe system, running from Hamburg, past Magdeburg and Dresden into Czechoslovakia: on this waterway vessels of 400–1,000 tonnage can ply. Lübeck is linked with it by the Trave canal. The Mark canals, uniting the Oder and Elbe and serving Berlin, stand third as regards volume of traffic, while the Oder system (from Stettin to Silesia), and the Weser-Ems-Jade system (including the Dortmund-Ems Canal) stand fourth and fifth respectively. The canal programme includes: the Mitelland Canal, bridging the existing gap between the Western (Rhine) and Eastern (Elbe-Oder) systems; the Rhine-Meuse-Danube canal, linking the two great rivers by a waterway taking large barges, instead of the present almost disused small-barge canal (the Main has already been improved to Würzburg). The canalization of the Ruhr for barges up to 2,300 tons from the Rhine to Mülheim is already complete. The total goods traffic on the inland waterways is now about 75 million tons, of which about half is in coal. About 30 million tons crosses the Dutch frontier inwards and 20 million tons outwards. The figures for the Kiel ship canal have not been included: it carried 53,000 ships between the Baltic and North Seas in 1929, the total tonnage of ships being 19 millions. The figure for 1914 was 34,000 ships of a total tonnage of nearly 6 millions. Whereas the water-borne traffic of the Rhineland-Westphalian district goes to Rotterdam, much of the rail-borne traffic normally goes to Antwerp, which is a competitor of Hamburg.

General Information.—The unit of currency in Germany is the gold *mark* of 100 *pfennig*, worth 11½*d.*, or 20·43 marks to the pound sterling. The standard value is gold. The Reichsbank issues notes, and private bank-notes are issued by the Baden, Bavarian, Saxon and Württemberg Banks. The Deutsche Bank and the Commerz und Privat Bank have numerous London agencies. The metric system of weights and measures is in general use.

Gilbert and Ellice Islands Colony.

Mails reach Cologne in 17 hours, and Berlin in 24 hours, and there are Air Mail services. There are British Consuls-General at Cologne, Frankfurt-on-Main, Munich and Hamburg, and Consuls at Bremen and Leipzig. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy. Germany is a member of the League of Nations.

GIBRALTAR

Area, Population and General Conditions.—Gibraltar is a British Colony and fortified naval base, administered by a Governor, who is also in command of the Garrison. It has an area of $1\frac{7}{8}$ miles, and a civil population of about 16,000. There is considerable congestion, since no further housing accommodation can be provided. Immigration is forbidden, and emigration is encouraged. No statistics of trade are available, but since the peninsula is entirely unproductive, all necessities and luxuries for the civil population and for the garrison must be imported, while as between 5,000 and 6,000 vessels call at Gibraltar annually there is a large trade in ships' stores, fresh provisions, and in luxury articles for travellers. Hence the total imports run into several millions. About 1,200 people are employed in the coal bunkering depôts. Tobacco and cigarettes are manufactured, and there is an active industry in connection with the repair of both hulls and machinery of the vessels calling at Gibraltar, besides the building of small boats, lighters and launches.

It is a high, rocky peninsula at the southern extremity of Spain, approximately in 36° N. latitude. The climate is dry and hot in summer; mild and wet in winter. The native-born population are Spaniards, and the Spanish language, currency (based on the *peseta*), weights (the *arroba* of 26 lb.) and measures are in unofficial use. The official language, currency, weights and measures are English, and Treasury notes are in circulation. The British banking establishments are Barclays and Thomas Cook & Sons, both with London offices. Mails reach Gibraltar daily in $3\frac{1}{2}$ –4 days. Gibraltar is also an important cable station for all parts of the world. The tonnage entering and clearing averages 12 millions, of which 60 per cent. is British. There is an Imperial Trade Correspondent at Gibraltar.

GILBERT AND ELLICE ISLANDS COLONY

Area and Population.—The Gilbert and Ellice Islands Colony was formed in 1915, in place of the former British Protectorate. The total area of the numerous islands and islets is about 200 square miles, and the native population is approximately 30,000. In addition there are about 500 Europeans, and a considerable immigrant coolie population in the employ of the company exploiting Ocean Island. This island, with its well laid out and equipped township, is the headquarters of the Colony. The total trade is about £ $\frac{1}{2}$ million.

General Physical Conditions.—These islands are of coral formation, and are consequently very low-lying. The Gilbert group is

Gold Coast.

situated on and about the Equator, and the Ellice group from 5°–11° farther south. These three groups are between longitude 170° E. and 180° E. of Greenwich. The Union group (Tokelau) has been transferred to the administration of New Zealand. Ocean Island lies to the west of the main groups, just south of the Equator, while Fanning and Washington Islands lie north-eastwards, and are north of the "line." Their position ensures to all the islands a very warm, equable climate, with sufficient rainfall. The coco-nut palm is the most important tree, while screw pines (pandanus), bread fruit, taro and yams supply food for the native cultivators.

Human and Economic Conditions.—The islands are commercially undeveloped, although the natives sell **copra** to European and Japanese traders in return for cotton goods, matches, hardware, and similar articles for domestic use. An exception is Ocean Island, where the **phosphate** industry is very thoroughly developed by the British Phosphate Commission. Here, as in many parts of the Pacific, the deposit of bird guano on coral has led to the formation of phosphate rock (phosphate of lime). This is dug or blasted by Chinese and Japanese coolies, and by islanders, under the supervision of British and Australian foremen and managers. Nearly 80 miles of light railway carry it to the jetties whence it is loaded. The output of 150,000 tons annually before the War has risen to over 250,000 tons, and the deposits appear practically inexhaustible, while the immediate market in Australia and New Zealand (which take respectively two-thirds and one-quarter of the output) ensures the prosperity of the industry.

GOA

See **Portuguese India**, p. 369.

GOLD COAST

Area and Population.—The Gold Coast, Ashanti and the Northern Territories form a British Colony and Protectorate, administered by a Governor. The total area is 80,000 square miles (two-thirds that of the British Isles), and the population rather more than 2 million (chiefly negroes), including under 3,000 Europeans and Americans—officials, missionaries and traders. The largest town is Coomassie, the capital of Ashanti, with 24,000 inhabitants. Akkra, the capital of the Gold Coast, has 19,600, Cape Coast Castle 11,000. The total foreign trade in 1917 was £10 millions, and in this year the imports were very much below normal. The average for 1919–20 was £23 millions, imports and exports balancing. These were years of abnormal prices, and it was to be expected that the value of the trade would diminish. This did, indeed, take place, but by 1928 the older figure had been reached again and exceeded, the total trade being £28 millions, with exports very slightly in excess. The per capita trade, £14, is greatly in excess of that of Sierra Leone or Nigeria, or of the French and sometime German West African Colonies. European missionary and educational work is very active, and a large proportion of the "town" natives speak English and adopt more or less English ways of life.

Gold Coast.

Position, Climate and General Physical Conditions.

—The Gold Coast and adjacent territories stretch from 5° N. to 11° N. latitude, i.e. they lie in the north equatorial belt, and have a uniformly high temperature throughout the year. The rainfall is very heavy, but diminishes towards the north and east, being brought by the south-west winds from the Gulf of Guinea. During the dry season (December–March) the *harmattan*, a relatively cold, dust-laden and very dry wind, blows from the interior, but scarcely reaches the coastal belt. The country is hilly or undulating, except for a narrow, low coast plain stretching eastwards from Akkra, and a similar low belt on the western frontier. Akkra is specially unhealthy, but in the less humid interior the climate is more tolerable for Europeans.

Primeval forests, rich in valuable trees and creepers, cover a large part of the country, especially in the wetter west, but the northern territories are clothed with an open park-like savannah.

Human and Economic Conditions.

—The people of this region are negroes, who engage in agriculture, with subsidiary cattle and other stock-rearing in the north, outside the tsetse fly belt. The plough is unknown, but the climate and soil conditions are so favourable that rich harvests are reaped by the most primitive methods: plantains, ground-nuts, yams, and millets affording an abundance of food. The last twenty years has seen the growth of an extensive trade in **cacao**, grown under European supervision and instruction by the native farmers. The Gold Coast is now the largest producer of this commodity in the world, the output exceeding 200,000 tons, worth over £11 millions in 1928. There is some fear of over-production and of disease, since the natives are not sufficiently enlightened to guard against, or to deal with, such dangers.

The climate is suited to plantation **rubber**, but although the industry has been started, it has as yet reached no great development. There is an abundance of wild rubber in the forests, and the total export at one time exceeded £½ million, but this figure has been greatly reduced. The secondary products are **kola nuts**, **palm kernels**, **palm oil**, and **lumber**, principally **mahogany**, which are among the abundant products of the forest, and

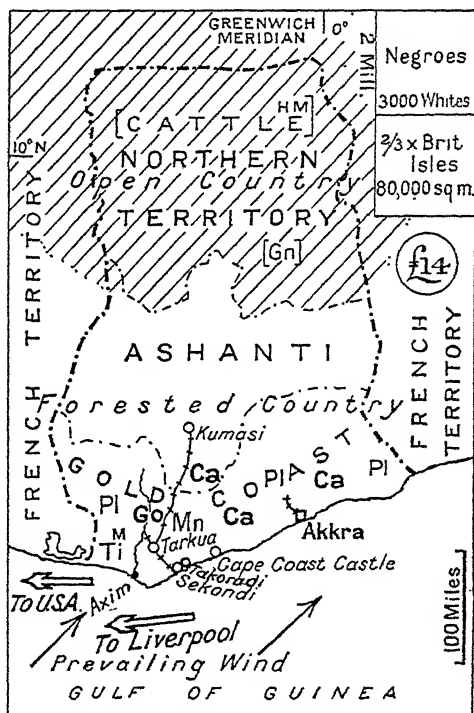


FIG. 49.—GOLD COAST.

Gold Coast.

now that the work of improving means of transport has been seriously taken in hand, these industries in common with others will undoubtedly further expand. Dunkwa and Axim are the centres of the timber trade, in which Americans are now interesting themselves.

The chief mineral wealth of the colony is in **gold**, of which the export sometimes reaches over £1½ millions annually, i.e. it is second only in importance to cacao. The mines are at Tarkwa, Prestea, and Obuasi (Ashanti). During the last ten years **manganese** has been increasingly worked, and the output from the Insuta mines has increased ten-fold to 350,000 tons. *Diamonds* are found, and there are deposits of *bauxite*. In the undeveloped Northern Territory the more open country favours *cattle*-rearing, combined with the growing of grain and *ground-nuts* for food. This region might supply the whole colony with meat.

Trade Relations.—A railway runs from the port of Takoradi via Sekondi to Coomassie, and the latter town has now been linked by railway with Akkra. There is also an east-west railroad inland, and the railway and port system is fed by some 5,000 miles of motor-roads. At present all goods must be lightered, often through heavy surf, but the port of Takoradi, near Sekondi, is practically complete and should become the foremost British deep-sea harbour in West Africa.

Four-fifths of the export trade is provided by cacao, and this is marketed in the United States ($\frac{1}{3}$), Great Britain ($\frac{1}{4}$), Germany and Holland (each $\frac{1}{5}$). Apart from the kola-nuts, which are marketed in Nigeria, Great Britain takes the rest of the exports, and thus has 30 per cent. of the total, against 25 per cent. going to the States, 18 per cent. to Germany, and 16 per cent. to Holland. As far as imports are concerned, the largest proportion, including cotton piece goods, spirits, coal and provisions, making up 58 per cent. of the total, comes from Great Britain. The United States supplies 12 per cent., including hardware, machinery, tools, motor-vehicles, oil and tobacco. Germany supplies 8 per cent., competing in metal goods and to a less extent in textiles, while Holland supplies $6\frac{1}{2}$ per cent., including gin and colonial wares.

The establishment of French traders in the neighbouring French colonies, which have frequent direct communication with the mother country, has made it easy for France to develop a considerable trade in miscellaneous manufactures and provisions with British West African Colonies.

The prosperity of the native farmers is raising their standard of living, and there is a growing demand for soap, cigarettes, scent, fancy goods and luxury articles such as bicycles, motor-cycles and gramophones.

General Information.—The Bank of British West Africa and Barclays Bank have branches throughout the colony. British sterling is the legal currency, and silver can be tendered up to any amount. There is a special West African silver currency, and local currency notes. French, Spanish and American gold coins are also legal. Mails take 15–17 days in transit. The Comptroller of Customs at Akkra also acts as Imperial Trade Correspondent and there is a Commercial Intelligence Bureau in London.

GREAT BRITAIN AND NORTHERN IRELAND

Area and Population.—Great Britain and Northern Ireland have an area of 94,600 square miles, or rather more than $\frac{3}{4}$ the area of the British Isles. The population numbers 44 $\frac{1}{2}$ millions, of whom 1 $\frac{1}{2}$ millions live in Northern Ireland. Some 7 $\frac{1}{2}$ millions, or $\frac{17}{100}$ per cent., live in Greater London (the Metropolitan Police Area), which is the largest and most important city in the world. The position of London, at the head of the Thames estuary, and at the lowest bridge point of that river, reflects the early importance of British trade with the Continent, and at the same time (since it is very centrally placed as regards the richest English agricultural regions) recalls the fact that previous to the Industrial Revolution, the prosperity of the country was based on farming. The same conditions held good in Scotland, where the historic capital city, Edinburgh, with rather over one-third of a million people, lies near the east coast, in the fertile Lothians. The fact that the coal-fields lie for the most part to the west, and that America now bulks hugely in world trade, has led to the modern growth of great cities distant from London. On the estuary of the Clyde some 1 $\frac{1}{2}$ millions of people live in Glasgow and the adjacent boroughs and towns: on the estuary of the Mersey over 1 million people live in Liverpool, Birkenhead and their near neighbourhood. Bristol, on the third great westward opening estuary, is less favoured as regards its hinterland, and less conveniently placed for trade with the second world city, New York; it has under $\frac{1}{2}$ million inhabitants, and is exceeded in importance by several inland centres. The twin towns of Manchester and Salford, possessing many of the advantages of Liverpool (the Ship Canal prolongs the Mersey estuary), have in the aggregate over a million inhabitants, Birmingham approaches the million figure, while Leeds and Sheffield have each somewhere about half a million people. The cities of the next group to be enumerated have each $\frac{1}{2}$ million inhabitants, more or less: they are Bradford, Newcastle, Nottingham, Hull, Leicester, Portsmouth, Cardiff and Stoke-upon-Trent. Belfast, the only great Irish industrial centre and the capital of Northern Ireland, is conveniently placed to draw upon the coal resources of Scotland, and has rather over 400,000 people. All the cities mentioned have a world reputation, and are associated with one or other of the various activities upon which British prosperity is based: shipping, shipbuilding, iron and steel, textiles, coal export, earthenware, or general trade. It is estimated that $\frac{39}{100}$ per cent. of the population of England and Wales is to be found in cities of upwards of 100,000 inhabitants, the corresponding figures for Germany and the United States being $\frac{26}{100}$ per cent. in each case.

Of employed males in England and Wales in 1921, 70 per cent. were classified as engaged in industrial or commercial work (including mining and transport), and only 10 per cent. as engaged in agriculture or fishing. In Scotland, there is the same disproportion, 80 per cent. in industry or commerce, and 13 per cent. in agriculture or fishing. Similar figures are not available for Northern Ireland, but trade and industry predominate. In consequence, Britain must buy the bulk of her cheaper foods and most of her raw materials abroad, and pay for them with manufactured goods. Hence her great need to capture and hold foreign markets

Great Britain and Northern Ireland.

at the expense of German and American competitors, and to have command of the seas. Such a general statement must, however, be qualified, and it should be noted that the iron and steel industry is largely based on home supplies of material, that there is a large surplus of coal to sell abroad, that Britain holds a leading position as regards her merchant navy, and that British people have much capital employed in foreign enterprises, and perform world-wide services as bankers, brokers and insurance agents: as a consequence, this country is in a position to draw supplies from abroad of which the value is far above that of the manufactures which she sells. The home market for British manufactures is a very important one, and the prosperity of industry depends largely upon the effective distribution of purchasing power among the mass of the home population.

Among the assets of the British manufacturer must be reckoned his high reputation for fair dealing, and for producing goods of superior quality and durability, since he has at command workers who are noted for their skill and intelligence; on the other hand such workers demand high wages, and although the higher the wage scale, the more prosperous the community, yet it is necessary to ensure, by organization and efficiency, that prices remain at a competitive level. It is generally accepted that British industry is at a disadvantage in so far as the clerical workers are not thoroughly educated, and have fewer opportunities for acquiring foreign languages than those on the Continent, where, too, science holds a more important place, and the application of science to industry is more widespread than in this country. The best-trained brains in Britain have hitherto gone into administration or into the learned professions, and although this state of affairs is decidedly altering, it is broadly true that business men lack theoretical and scientific knowledge, while the governing classes lack knowledge of practical everyday economic facts.

The average foreign trade of the British Isles previous to 1914 was £1,300 millions, or £28 a head, the imports representing 55½ per cent. of the total and exports 44½ per cent. The difference of 11 per cent. was made up by the "invisible exports" already mentioned. An average of rather more than £100 millions represented colonial and foreign goods imported for re-export, i.e. entrepôt trade. In 1928 the total was £2,150 millions, or nearly £49 a head, but the imports represented 58 per cent., the exports and re-exports 42 per cent. The technical "adverse balance" was, however, according to a Board of Trade analysis, more than covered by interest on overseas investments and shipping dues, apart from receipts for banking services and so on. The figures for 1929 showed an increase of 1·8 per cent. in the value of imports, and of 1·4 per cent. in the value of exports.

It may here be noted that Great Britain no longer holds the virtual monopoly of shipping services of the pre-war period. Although the total tonnage of the merchant navy has increased, it is now only 30 per cent. instead of 50 per cent. of the world's total, the United States coming next with 20 per cent. In view of the vast bulk movements of oil, however, it is of interest to note that one-third of the world's tanker tonnage is British.

Position, Climate and General Physical Conditions.

—The British Isles lie on the north-western border of Europe, facing the Atlantic Ocean, between latitudes 50° N. and 60° N., i.e. on the whole farther north than the main centres of world population. The type of climate is that known technically as "cyclonic," although the cyclones experienced in Britain

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have only this in common with violent tropical cyclones, that both are advancing circular storms bringing in their train a rapidly changing sequence of winds. These winds coming in turn from all points of the compass bring the proverbially changeable British weather, which is of the type most uniformly stimulating to activity, and prepares the Englishman to endure without loss of health a great range of climates abroad. The general movement of the air currents is from the west and south-west, whence the "cyclonic" storms come; and the slow drift of warm water past the shores, and of warm oceanic winds across the lands in winter, keeps British harbours open at all seasons, and keeps the surrounding seas free from the dangers of drifting ice, so that the high latitude of the country is no disadvantage. The rainfall is naturally heavier on the west than on the east, and the difference is accentuated by the fact that the upland areas lie to the west and the plains to the east. Hence the rainfall varies from over 100 in. in some mountain districts to a bare 20 in. in parts of East Anglia.

Within the small compass of the islands there is a considerable variety not only of climate but of topography. Ireland is largely an ill-drained plain, dotted with lakes and peat-bogs, and crossed by the sluggish Shannon. In the north-west and south-west respectively lie the wild, but beautiful mountains of Donegal and Kerry, while to the east lie the more smoothly rounded Wicklow Mountains, and the basalt plateau of Antrim. In Scotland three well-marked divisions stand out: the Highlands, clothed with cotton-grass moor towards the wetter west, and with heather-moor towards the drier east, where they sink to a marginal plain; the Southern Uplands, covered almost everywhere with natural pasture, varied by ling, gorse, bracken and heather, and between these two the Central Lowlands, into which four-fifths of the population is crowded. Even the Lowlands are interrupted by hills, but they contain the richest agricultural land, as well as the coal-fields, while they are penetrated by three great estuaries, the Firths of Tay and Forth on the east, of Clyde on the west, so that communication coast-wise or over-seas is everywhere easy.

Running southward from the Southern Uplands of Scotland is the broad belt of the Pennine Chain, covered with pasture and moor, separating the plains of Lancashire and Cheshire on the west, long ill-drained and hoggy, from the rich Vale of York on the east, an agricultural region which was early in high repute. Hence the ancient and historic city of York arose, unmatched on the other side of the Pennines, but since coal occurs on either flank of the Chain, great industrial cities have latterly sprung up both to the east and to the west, often in the very heart of heather-clad hills.

Access to the Lancashire Plain is by the Midland Gate, the broad opening between the high mass of the Peak District (the Southern Pennines) and the great block of ancient rocks which build the Cambrian Mountains of Wales. Through the Midland Gate pass numerous railways which converge on Crewe and then spread out fanwise once more. The Welsh Upland is flanked to north and east by small coal-fields, but the greatest field, rich in steam coal and anthracite, lies to the south, conveniently placed between the mountains and the sea. The Welsh Uplands, like the Scottish Uplands, are clothed with natural pasture and form a great sheep walk, while on their margins are many valleys and minor plains suited for cattle.

Sheltered somewhat by the Welsh Uplands, the Midlands have yet a sufficiently abundant rainfall to make an excellent grazing ground, while in

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many places the rich red loams and clays that cover them are pierced by older rocks bearing coal. A belt of limestone running from Portland Bill to the mouth of the Tees, and bearing at many points valuable iron ores, serves as a rough boundary of Industrial England, for to the south and east of it, apart from the Metropolis, agricultural interests predominate. The Plains lying about the Wash, including the rich Fen lands; the Weald of Sussex, Surrey and Kent; the Thames Valley; the Hampshire Basin; all are noted for farming in some aspect or another. Chalk, clay, sand and alluvium build up this region, and a useful range of mixed soils of varying composition is the result. Lying to the west of the limestone band, and still noted for mining activities (although these were more important in former days) is the Devon-Cornwall Peninsula, where great bosses of granite and slate build the famous moors. Sharply contrasted with the bleak and often misty uplands are the sheltered sunny valleys, where, especially on the South Coast, is a climate milder than any found elsewhere in Britain.

The Channel Islands (Jersey, Guernsey, Alderney and Sark), lying across the English Channel off the coast of Normandy, and the Scilly Islands, lying south-west of Land's End, enjoy an almost complete freedom from frost and severe weather, and as the ancient rocks of which they are built have weathered to a deep fertile soil, they have an agricultural value which is out of all proportion to their total area of less than 100 square miles.

Human and Economic Conditions.—In Great Britain and Northern Ireland agriculture is of subsidiary importance, the cultivated area being about 31 million acres, or under $\frac{2}{3}$ acre per head of population, whereas in the United States it is over 5 acres per head, and in France 2½ acres. Of the cultivated area, less than half is under crops, i.e. is employed at its maximum food-producing capacity, the greater part being under grass, since the most profitable lines of farming are dairying, breeding and fattening beasts and sheep for the butcher, and the rearing of pedigree stock. A certain amount of pasture was broken up during the War, but is reverting again to grass. Even the arable land is not farmed to capacity, and according to the Board of Agriculture, the German farmer was producing 50 per cent. more food on an average per acre than the English farmer, largely owing to a more generous use of chemical manures and a different selection of crops. The latest figures show a consumption of 1½ million tons of fertilizers, but it is estimated that this figure could be doubled with advantage, given the requisite capital and labour. There are ample stores of sulphate of ammonia (from gasworks and coke ovens) in the country, besides basic slag (from open hearth and Bessemer furnaces), while cheap nitrates from Chile, phosphates from North Africa, and potash manures from the Continent are obtainable.

As regards the distribution of crops, wheat attains its maximum importance in the drier and sunnier eastern plains, including the Lothians and Fifeshire in Scotland, and the counties between the Humber and the Thames estuary in England: hay, roots and oats attain a greater importance in the Midlands and the west, where it is wetter and milder. Very little wheat is grown in Ireland, whereas the land under hay is over half that in the whole of Great Britain. Barley (for the breweries) occupied in 1913 a greater area than wheat, but the crop declined slightly in favour of wheat and oats during the War, and now covers $\frac{1}{3}$ the acreage of wheat. Oats, which will grow well in wetter and cooler regions than wheat or

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barley and on poorer soils, cover the greatest acreage, overwhelmingly so in Scotland, Ireland and Wales, although in England itself they take only the third place. **Potatoes** for the London market are grown mainly in Lincolnshire and the Fen-Country; for the industrial districts they are grown in Cheshire and South Lancashire; and for Scotland in the Central Lowlands. In Northern Ireland they are a main crop, and the output of over 1 million tons affords a considerable surplus for England and Scotland.

Market gardening is profitable in the neighbourhood of the large towns, and fruit growing is important where favourable conditions of soil, climate and market are combined. Sandy soils, which are warm and dry, are most suitable to small fruits, while a sheltered position, and the neighbourhood of a body of water which checks sudden frosts, are desirable for orchards. The vale of Strathmore, the Carse of Gowrie, and Clydesdale fulfil one or other of these conditions in industrial Scotland, the Vale of Evesham serves the Black Country, while London draws on the Hampshire Basin, Essex, Herts and Cambridgeshire for small fruits, and also on the more famous Kentish orchards and strawberry gardens. During the War the bulk of this fruit went to the jam-makers, who also import large quantities of pulp from Holland, France and Spain. The unusually mild winter climate of the Channel Islands, Scilly Islands and Southern Cornwall allows their inhabitants to specialize in early or delicate vegetables (e.g. new potatoes and tomatoes), grapes, and spring flowers (narcissus, etc.), but these also are drawn in larger quantity from abroad. In 1929 the value of imported fresh vegetables was over £10 millions.

Flax is grown over a limited area in Northern Ireland, especially in the Lisburn-district, but supplies only a fraction of the demands of the linen industry. Some 60,000 acres were cropped in 1913, producing 10,000 tons, and the figure rose to 143,000 acres in 1918 (the highest since 1880), but subsequent years have shown a rapid fall, in spite of the long absence of Russian flax, and at present about 40,000 acres are sown, yielding 5,000 tons of flax.

The British Isles are one of the most important sheep-breeding countries in Europe, since the upland pastures of Scotland, England and Wales afford fine sheep walks; the chalk and limestone belts running across the plains are also very suitable, and the saltings (reclaimed marsh lands) round the Essex and Kentish coasts and elsewhere carry large numbers of these animals. The total of 24½ millions slightly exceeds that before the War. The wool produced is about 118 million lb., or nearly one-seventh of the home consumption.

Horned **cattle** are most numerous in the plains and valleys of the Midlands and the West country, since they thrive best on the wetter and richer pastures, and can remain in the fields during the mild winter. Of a total of 8 millions, about three-fourths are in England and Wales. Milch cows are important everywhere, and in those districts beyond easy reach of the large centres of population consuming fresh milk, there are creameries where butter, dried and condensed milk are manufactured. As regards **pigs**, the total is about 3½ millions, of which 3 million are in England and Wales. Horses (other than those in use in towns) number 1½ millions.

The *fisheries* of the British Isles are an important home source of food, and furnish an article of export. The pre-war value of £10 millions for the

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catch increased to about £25 millions during the period of inflated prices, and is now about £18 millions, but the quantity of fish landed, about 1 million tons, has shown a decrease. The best fishing grounds are in the North-Sea, and facilities for rapid marketing in the industrial centres are organized in connection with the East Coast ports, e.g. typically at Grimsby. The herring fisheries are the most important, the quantity of fish sold fresh being exceeded by that which is cured: cured herrings are largely exported to the Continent (over $\frac{1}{2}$ million tons in 1928). Cod, hake, mackerel, haddock, whiting, plaice, turbot and sole are among the chief fish also landed. The inshore shell-fisheries (including lobsters, crabs, and oysters) have a value of about £ $\frac{1}{2}$ million. In addition to consuming the home supply, Britain offers a large market for imported tinned fish, particularly salmon and sardines, valued at about £6 millions in 1928.

The *mineral* wealth of the British Isles consists above all in **coal**; these mines formerly employing over a million persons, although the maximum in 1928 was only 941,000 men. The output was 287 million tons in 1913, the export in the same year being over 76 million tons. The post-War lowering of the output, which was 246 million tons in 1928, and above all the falling off in the export trade, now only four-fifths of its previous volume, is a matter of serious concern. The rapid increase of output in the United States, and the development of hydro-electric power on the Continent, as well as the increasing use of fuel-oil, are factors which must permanently affect the coal situation. On the other hand, it appears that oil will not oust coal to the extent that was anticipated, and much is to be expected from the "rationalization" of the coal industry, which is, in effect, its modernization, and is well under way.

The United States output is from $2\frac{1}{4}$ to $2\frac{1}{2}$ times that of Great Britain, but the populations of the two countries are in roughly the same proportion, and between them they raise 63 per cent. of the world's coal. The total manufacture of **coke** (other than gas coke) in 1928 was $11\frac{1}{2}$ million tons, for which $17\frac{1}{2}$ million tons of coal were put through the ovens. Durham has the greatest number of coking ovens, although quite half are of the wasteful beehive type, whereas in Yorkshire over two-thirds are of more modern types which recover over 80 per cent. of the valuable by-products. There has been an enormous improvement in this respect, so that nearly 70 per cent. of the coal now goes into by-product ovens, as against about 40 per cent. before the War. But the German percentage is probably over 90, while although in America only half the ovens are of the best type, the fact that in all $56\frac{1}{2}$ million tons of coke are manufactured makes the supply of coal-tar products an ample one.

The greatest export of coal is from South Wales—Cardiff, Newport, Swansea and Port Talbot together accounting for 50 per cent. of the total; the ports of Northumberland and Durham, i.e. Tyne Ports, Blyth, Sunderland and Hartlepool, account for another 30 per cent., while less than 8 per cent. goes from the Scottish ports, and comparatively little through Liverpool and Hull from the Lancashire and Yorkshire fields. France and Italy are normally the most important customers for British coal, followed by the Scandinavian countries, Gibraltar, and Egypt.

South Wales produces the valuable smokeless steam-coal, and also the bulk of the British output of anthracite, which amounted to $5\frac{1}{2}$ million tons in 1928. Neither of these are coking coals. Swansea, Cardiff and

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Newport are the main centres of patent fuel manufacture, the small coal and dust being bound up into briquettes by means of coal-tar pitch.

Iron ore ranks next to coal in point of value, but the home supply of some 11 million tons is insufficient to meet national requirements, and is supplemented chiefly from Spain and Algeria, which supply 70 per cent. of the 5-6 million tons needed. About 80 per cent. of the home-produced ores come from the ironstones associated with the belt of Jurassic limestone which runs across England from Portland Bill to the mouth of the Tees. These are basic ores. The Cleveland Main Seam is the most important mining district, with Middlesbro', favourably placed on the Tees estuary for receiving coal, as the smelting-centre. The outcrop practically disappears in South Yorkshire, but in North Lincolnshire the Frodingham Bed is worked, and in South Lincolnshire, Rutland and Northamptonshire, the so-called Northampton Bed—Wellingboro' and Kettering being large smelting centres. The North Lancashire mines behind Barrow-in-Furness yield hematite ores, and account for 10 per cent. of the total. Only 8 per cent. now comes from the coal measure ironstones, e.g. on the Lanarkshire coal-field, and the remaining 2 per cent. from miscellaneous sources.

The output of *pig-iron* from British furnaces in 1913 was 10½ million tons, and of *steel* 7½ million tons, blast-furnaces being most numerous in the Cleveland District, West Riding (Sheffield and Rotherham), South Staffordshire (Birmingham and Black Country), South Wales (Merthyr Tydfil, Ebbw Vale) and Lanarkshire (Scotland). During the war the pig-iron output diminished, and in 1919 was only 7½ million tons. In 1928 the figures were 6½ million tons of pig-iron and 8½ million tons of crude steel.

Tin ore, formerly mined in Cornwall to the value of over £1 million annually, can no longer be profitably worked on a large scale. A little **lead** is mined in Cumberland, Durham, Flintshire, the Derbyshire hills, and the Southern Uplands of Scotland, but the home supply is barely a twentieth of the country's needs, and very many of the mines both of lead and tin are on the margin of production, their working depending on the current price of the metal. The copper and zinc output is also insignificant.

Of non-metallic minerals *clay* for brickmaking and coarse earthenware, *kaolin* (from Devonshire and Cornwall) for porcelain, *limestone* and *chalk* for cement-making, *sandstone* (for building), *slate* (especially from North Wales for roofing), and various hard rocks for road metalling are sufficiently abundant for all local needs. The **oil-shale** industry is important in East-central Scotland, the 1928 output being 2 million tons, worth £½ million, and yielding 43 million gallons of oil and 50,000 tons of sulphate of ammonia. The Portland **cement** industry is important wherever a navigable waterway cuts through *chalk or limestone hills*, e.g. at Rochester on the lower Medway, and from such points the product is readily shipped abroad. The abundant deposits of **salt** are also a valuable national asset, this mineral occurring in the belt of *red (Triassic) rocks* which runs in a great horseshoe round the Pennines, southward through Lancashire and Cheshire, across the Midlands, and thence northwards to the Tees-mouth and Durham. Cheshire, with the Weaver valley, is the most notable brine-pumping district (Northwich, Nantwich, Middlewich), but salt is exploited also in Staffordshire, Warwickshire, North Yorkshire and Durham.

The abundance of salt and limestone near the English coal-fields has

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led to the manufacture of *heavy chemicals* at points where the import of sulphur or pyrites (in which the country is unfortunately lacking) is easy: Italy produces sulphur, Spain and Norway pyrites: hence the great chemical works of Runcern, Widnes, Middlesbrough, Newcastle, and the Midlands. Pharmaceutical products were increasingly made in Britain during the War, but the superior knowledge of technical processes which the Germans possess, and their greater command of raw material, make effective competition difficult. Since soda (from salt) is employed in the manufacture of **glass**, this industry is located in the same districts—South Lancashire, the Midlands, Durham—as the chemical industry. The British glass-maker, however, feels Continental competition very keenly, Belgium, Germany, Czechoslovakia (i.e. Bohemia), Holland, Sweden and the United States all doing an export trade in various types of glassware, including both fine and coarse qualities. Plate and sheet glass, bottles, table and fancy glass, electrical bulbs and optical glass are all produced in this country, but except as regards high-class hand-made glassware, the British manufacturer is not in a strong position. In this industry again the research chemist has an important part to play, and recently the American glass-makers have been able to put a new type of fire-proof glass ware for cooking on the market. Glass to the value of £5 millions is imported, while the export is barely £1½ millions. Germany contributes considerably to the import.

The **dyestuffs** industry, like the glass industry, was artificially fostered while abnormal conditions obtained during the War, and since textiles, to which the dyes are applied, form our leading export, the manufacture is rightly regarded as a **key industry**. It is apparent, however, that German leadership has hardly been shaken, for chemicals and dyestuffs to the value of £15½ millions are now imported, nor is this unexpected, since over fifty years have been devoted by German chemists and technicians to the development of the coal-tar industry from which the fundamental aniline and alizarin compounds are derived. Very substantial progress in many directions has, however, been made in Britain, Huddersfield, in the heart of the Yorkshire textile-manufacturing region, being the chief centre of the dye industry, while there are large works also at Port Ellesmere (on the Mersey), at Manchester, Middlesbrough and elsewhere. In Glasgow and neighbourhood, well placed for the assembling of raw materials, the manufactures of heavy chemicals, glassware and dyestuffs are all represented.

As has been mentioned, textile industries, and among these the **cotton** industry, are of first importance in the British Isles, as can be gauged from the fact that the heaviest single item imported is invariably raw cotton, costing on an average 40 per cent. of the total value of imports, although the figure fell to 5 per cent. in 1927; moreover, cotton yarn and cotton goods head the export list each year, representing usually 20 per cent. of the total value of exports. The raw cotton of ordinary grade (American) comes almost entirely from the United States, other sources of supply being at present negligible; the higher grades (Egyptian and Sea Island) come to a very large extent from Egypt, together with small supplies from the West Indies and the coastal belt of the United States. India's very considerable crop is of low grade, and is spun in the East, although there is an increasing crop of middling-American from the Indus Basin and Madras. In view of the fact that American cotton spinners are increasing their consumption of yarn, while American farmers are inclined to restrict

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the cotton crop in favour of food-stuffs, and still further that the ravages of boll pests constantly threaten existing sources of supply, the extension of cotton-growing of *suitable grades* within the Empire is a pressing need and engages the attention of the Empire Cotton Growing Association.

The total number of spindles is estimated at 58 millions, of which over two-thirds are engaged upon American cotton, and the remainder upon Egyptian, i.e. spinning the finer counts. Spinning occupies over 200,000 operatives, and in addition there are 800,000 looms employing 354,000 weavers. The great centre of the industry is, of course, the S. Lancashire coal-field, with Liverpool as the importing point and market for the raw cotton; Manchester as the market for yarns and piece goods; Rochdale, Blackburn, Burnley, Oldham, Bolton, and other great towns as the seats of the cotton mills. Practically all the spinning is done in South-east Lancashire and the adjacent parts of Cheshire and Yorkshire, although the weaving industry is more widely spread. Every variety of cotton textiles is manufactured, from coarse sheetings, calicoes and flannelettes to fine mercerized fabrics, chiffons and voiles, and the range includes velvets, corduroys and fustians.

Glasgow and district, favourably placed as regards import and export, coal and labour, is a secondary cotton centre, Paisley being specially noted for its large cotton thread industry (the Coats combine). Nottingham, with Long Eaton, is the seat of the machine-made lace industry, making curtains, nets, edgings, veilings, besides cotton knit goods, hosiery and fabric gloves. Subsidiary centres are found in Derbyshire and at Kilmarnock.

British yarns are marketed in most countries where cotton textiles are manufactured, notably in Germany, the Netherlands, India, the Near East, and (for finer counts) Switzerland and the United States. Japan has proved a very strong competitor in Far Eastern markets, notably in China. Cotton piece goods find their principal market in India, followed in the order given by Latin America, Egypt, China, West Africa, France, Australia, the Dutch East Indies, Switzerland and the Near East. Japan is again a competitor in the Far East, as is also the United States. In regard to meeting foreign competition, the chief asset of the British cotton industry is its enormous momentum as a "going concern," coupled with the unequalled skill and experience of the operatives, which is handed on from generation to generation. The only branch of the cotton industry in which the British manufacturer fails to hold his own is in that of hosiery and gloves, the imports (from France, Germany, Japan, America) exceeding the exports.

The **woollen** industry is on a much smaller scale than the cotton industry, since the fabric is not in such universal demand, but the export value of woollen yarn, woollens and worsteds in 1920 reached £135 millions, while the import value of raw wool amounted to £94 millions. These figures were abnormal, however, and the present import of raw wool costs £60 million, while the export of woollens is valued at £51 millions. This industry depends mainly upon selling in the home market, and is a very old established one, since wool was long the English staple of trade, and the manufacture was carried on round the margins of the uplands which formed the principal sheep-walks. Here it is still to be found, but practically 70 per cent. of the output is from the eastern flank of the Pennines, where the dales run down to the West Riding coal-field. Bradford is the commercial centre of

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the wool trade, although the London wool market is very important. Leeds, Huddersfield, Halifax, Wakefield and Dewsbury are all large woollen-manufacturing towns. Besides sheep's wool, various minor raw materials are attracted to this area, notably flax, mohair, alpaca and vicuna; woollen rags are also imported for making "shoddy" cloth. There is, moreover, no hard and fast line between the Lancashire and Yorkshire textile areas—some woollens (notably flannels) are manufactured in the former, and both cottons and "union fabrics" are manufactured in the latter. The Pennines are narrow at this point, and there is free intercommunication both by rail and canal, the Aire and Calder navigation system carrying very considerable traffic. Liverpool serves as the American and World port, Hull (with Goole and Grimsby) as the Continental port for the combined regions. In addition to piece goods (the largest class) and yarn, British carpets and woollen hosiery find a good market abroad. The value of carpets exported exceeds that of the Oriental carpets and rugs imported.

In Scotland the woollen industry centres in the valleys opening eastwards from the leading sheep-walks—the South Uplands and Cheviots: here Hawick is the business centre, while Galashiels is also important. Tweeds and knit goods are the speciality of the region, which has, like Yorkshire, pure water for cleaning and dyeing purposes, but lies right away from the coal-fields. Leicester, on one of the lesser Midland coal-fields, and in a district famous for its long-woolled sheep, has also developed a large knit-goods industry. There are many minor woollen centres which have maintained their existence owing to the high repute of the fabrics produced—such are the "Newtown flannels" of the Welsh border, the "West of England cloth" of Stroud, the "Harris tweeds" (homespun) of the Hebrides, and the Donegal tweeds (largely homespun) of north-west Ireland, with many others. There is a large re-export of foreign and colonial wool.

The linen industry ranks third among British textiles, but it is of world-importance. The number of spindles is over a million, and of looms about 58,000, of which two-thirds are in Northern Ireland, one-quarter in Fife-shire and Dundee (Scotland), and the remainder in England. The industry was greatly disorganized by the cessation of trade with Russia, and the abnormal demand for linen as a war-material. Roughly the output has less than half the value of that of woollens, and some 60 per cent. is sold in the home market. Belfast is the centre of the industry, while Londonderry specializes in shirts and collars, and Dunfermline in Scotland is noted for table damasks. Other fibres are attracted to the flax spinning and weaving centres, notably cotton, hemp and jute. Belfast manufactures cotton as well as linen thread, besides "union" fabrics, and has very large rope works. Similarly Dundee has very important jute manufactures (ropes, sacks and hessians), and most of the leading East Coast ports (facing the Russian hemp region) manufacture ropes, sailcloth and cordage. Jute manufactures to the value of £4½ millions are exported, and linen manufactures to the value of £10 millions.

The British natural silk industry is a small one, centring in Macclesfield in East Cheshire: raw silk to the value of nearly £2 millions was imported in 1927, but in the same year the import of silk goods was valued at £16 millions. These came mainly from Japan and France.

The artificial silk industry is one of quite recent and phenomenally rapid growth, in which all the great textile manufacturing countries have

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taken a share. The rival raw materials are cotton linters and wood pulp, from which the synthetic filament is made. The industry is carried on at Coventry, once a notable centre for natural silk ribbons, and at factories scattered widely through the textile areas and even the agricultural districts. The export has reached a value of £7½ millions, but there is also an import of £6 millions, mainly from France, Germany and Italy. The output in Great Britain is second only to that in the United States.

The *metal industries* are next in importance to textiles, and play a very large part in external trade. Raw metals and ores (including iron and steel, copper, lead, tin and zinc) were imported in 1927 to the value of nearly £80 millions, while the export of metal and metal goods, or part metal goods, including machinery, was worth about £148 millions.

As has been mentioned, the great centres for the production of **iron and steel**, including pig-iron, steel ingots, castings, plates, angles, joists, rails, structural and manufacturers' steel, are the North-east coast (Newcastle to Middlesbrough), Sheffield and District, the Midlands (Black Country), South Wales, Central Scotland and the North-west Coast (Barrow and Whitehaven). Particular localities specialize in particular manufactures. Sheffield has a world reputation for cutlery, including knives, scissors, and all varieties of edged and machine tools, and beside this there has grown up the manufacture of ~~table-plate~~, whether of ~~silver~~, electro-plate, or some variety of "white metal." The export of cutlery is valued at £2½ millions, the home market being the more important. Agricultural machinery and implements, engines, heavy forgings and castings are also made at Sheffield. An important development (associated with Sheffield) which took place during the war was the increased ~~manufacture of ferro-alloys—manganese-steel, tungsten-steel, molybdenum-steel, nickel-steel, chrome-steel and so on—~~which are employed in the manufacture of machine tools, automobile parts, and stainless cutlery, and are alloyed with structural steel. These are largely smelted in the electric furnace—and the number of furnaces in Britain increased from sixteen in 1913 to ninety-four in 1917—a figure exceeded only by that of the United States, which was 177 in the same year. The stainless-cutlery industry and machine-tool industries are prospering, both as regards home and export trade. The Midlands, including Birmingham, Wolverhampton and Dudley (the Black Country), specialize in ~~general and domestic hardware, hollow-ware and enamel-ware~~. Brass-founding, brass-fitting, and miscellaneous metal-work, including the manufacture of jewellery, lamps, lavatory fittings, and bedsteads, are also associated with Birmingham. Among metal industries in which Britain entirely fails to hold her own is the *watch and clock* industry, centring in London. The British article is of excellent quality, but too costly for the ordinary purchaser, so that imports, mainly from Switzerland and the United States, are valued at £3 millions.

South Wales, with good facilities for import from Spain and from the Tropics, has large metal-working industries, including tin, copper, zinc and nickel (the ore in the last case coming from Canada), notably near Swansea and at Llanelli. This coal-field is consequently the seat of the ~~tin-plate (including black plate and terneplate) industry~~. Some half-million tons of tin-plates were exported before the War, i.e. about 70 per cent. of the output, and the market is almost world-wide. The United States, however, now manufactures over 1½ million tons, and is an exporter. The same district has also a

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large manufacture of *galvanized iron* sheets, although these are made also in Cheshire, the Midlands, at Middlesbrough, and elsewhere. Like tin-plates, these sheets find a very wide and valuable market abroad, which was in both cases very seriously disturbed and contracted during the War.

The premier position of Britain in the textile industries owes a great deal to the high point of perfection to which home manufacturers have brought the *textile machinery*, and this is sold in all countries where similar textiles are manufactured. This industry is naturally mainly located in the Lancashire and Yorkshire areas, while the making of *agricultural machinery* of high quality and repute is carried on in many of the leading market centres of Eastern England, notably Norwich, Grantham, Lincoln and Bedford. In this branch of industry American competition is very formidable. *Motor-cars*, motor-cycles and bicycles are manufactured on a large scale in the Midlands, notably at Coventry and Birmingham, and also in London, but until recently they were undersold in both home and foreign markets by American and French cars; £7 millions were spent in 1919 on foreign cars, whereas the sales abroad (including spare parts but not spare tyres) were only £2½ millions. In 1927 the value of the export trade in cars was £16 millions, a figure just double that of the imports.

Shipbuilding is of first importance on the Clyde, including Clydebank, Dumbarton and Port Glasgow, with Glasgow at the head of the estuary, as commercial centre for the whole busy region. Tynemouth, from Newcastle to South Shields, the Hartlepoons, Sunderland and Middlesbrough, form the great north-eastern shipbuilding group; Belfast, in spite of having to import from Scotland both coal and iron, has also a leading position, employing 30,000 workpeople, while there are large yards at Barrow.

In 1920, 618 merchant vessels of rather over 2 million tons were launched in the United Kingdom. This figure exceeded by 140,000 tons that for 1913. Of the total, 60 per cent. was for British and 40 per cent. for foreign owners, principally Norwegian, French and Italian. The total world's output was 5·8 millions of tons as against 3·3 million tons in 1913. Thus Britain produced 35 per cent. of the total as against 58 per cent. in 1913. The temporary loss of position indicated by these figures was due to the enormous shipbuilding boom in the United States. That country launched over 4 million tons in 1919 and 2½ million tons in 1920; enormous over-production resulted in nearly ten years' stagnation in the American yards, and the same thing occurred on a smaller scale in Japan. Of 2·7 million tons built in 1928, Great Britain built 53·6 per cent., Germany 14 per cent., Holland 6 per cent., Denmark 5 per cent., Sweden 4 per cent., Japan 4 per cent., and America only 3 per cent. Japan and America slightly bettered their position in 1929.

Marine engineering is important in the great shipbuilding centres. General *engineering* is carried on in practically every large town, while several centres have grown to importance owing to the location there of the railway workshops of one or other of the large companies—e.g. Crewe, Swindon, Darlington, Derby. Locomotives, trams and other rolling-stock are also built for export in the Midlands and in the Scottish industrial district, and the sales abroad reached about £9 millions in 1927.

Taking machinery as a whole, British exports in 1927 amounted to £47 millions, including £2½ millions for sewing machines (made near Glasgow),

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but imports in the same class cost £16 millions, of which over a quarter was for machine tools. Totals for 1920 showed £20 millions imported, and £63 millions exported.

As regards *electrical goods*, apparatus and machinery, a more favourable position is indicated by the present trade figures, in that exports are valued at £11 millions, and imports at £4 millions only.

Among the secondary industries of the British Isles, the manufactures of **china** and **earthenware** supply the bulk of the home market, and furnish an export valued at £3-3½ millions. The Potteries are situated on the North Staffordshire coal-field, near the source of the Trent, and include Burslem, Hanley, Fenton, Longton and Stoke. The coarse clay of the neighbourhood is suitable for the saggars in which the china is baked, but china clay (kaolin) from Cornwall is imported through the mouth of the Mersey by canal. The normal output of the clay is 700,000 tons, part of which is used in Lancashire for loading cotton fabrics, and part in paper-making. British sanitary ware is of high repute, and holds the field abroad, while table crockery and fancy china of all qualities are manufactured. Apart from the "Potteries" proper there are manufactures of high-class china in Derby, Worcester and London, while some works are located in Devonshire.

The **leather** industry is a very large one, since in the main the whole population of the British Isles wear home-manufactured boots and shoes, while saddlery, harness and belting are also of home origin. The import of raw and dressed hides is valued at £7½ millions, and there is a large import of dressed and undressed leather, including chrome leather, patent leather and sole leather from the United States, France, and Germany, valued at £15½ millions. In addition, the cattle slaughtered for import supply a large quantity of raw hides to the tanneries: hence these latter are situated near the great ports of entry, e.g. on the Mersey, or are scattered through the rural districts. Valonea from Smyrna, wattlebark from Natal, myrobolans from India, and quebracho extract from Argentina are the chief tanning materials imported, costing over £1 million sterling. The leading leather markets are at Bermondsey (London) and Leeds. The *boot* and *shoe* manufacture is associated with the Midlands, where there are noted *grazing lands*, Northampton taking the first place, followed by Leicester and Stafford. The industry is also important at Norwich and Bristol, and at Maybole and Linlithgow in the west and east respectively of Central Scotland. The export of boots and shoes is valued at £4½ millions, that of dressed and undressed leather at £6½ millions. *Yeovil* has a hand-made *glove* industry, but kid and leather gloves are largely imported.

A great many industries depend upon the fact that the ports of Britain are world markets of the first rank, so that the assembling of raw materials is easy. Such, for example, are sugar-refining, tobacco-manufacture, the making of chocolate and confectionery, of rubber goods, the refining of mineral and vegetable oils, and the manufacture of oleomargarine and soap. Besides supplying the major needs of the home market, the soap-makers export goods to the value of nearly £3½ millions. Rubber tyres are sold abroad to the value of £4 millions, and other rubber goods to the value of £3 millions. These industries are generally carried on near the great ports of entry—i.e. at Liverpool, London, Manchester, Glasgow, Hull, and Bristol.

The **paper** industry, though depending on imported raw material, requires an abundant supply of pure water, and hence the mills are in

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scattered locations, e.g. on the margin of the chalk outcrops in the London Basin and Kent, in Eskdale (Midlothian), and on the margins of the Pennines. The raw materials include pulp from Scandinavia and Canada, besides esparto-grass from Spain and North Africa: they cost £10–12 millions. Yet the consumption is so great that paper to the value of £15 millions—chiefly newsprint from Canada and Finland—is imported in addition. There is an export of paper—chiefly stationery—to the value of £9 millions, and of printed books (chiefly to the Colonies) to the value of £4½ millions. The printing and publishing trades are centred in the capital cities of the different parts of the United Kingdom, and in the older Universities.

The **brewing** industry, originally dependent on home-grown barley and hops, is developed throughout the country, and the output of some 30–35 million barrels is mainly consumed at home. The ales of Burton-on-Trent and London are of very high repute, and contribute largely to the export trade, valued at £1½ millions. Over £9 millions is spent on foreign barley, and the industry also consumes about 1½ million tons of sugar, besides imported hops to the value of over £1 million. The **distilling** industry is characteristic of Scotland and Ireland, whisky being the principal product. The output reaches an average of 40–50 million proof gallons, and the export of 7 million gallons in 1919 was worth £8¼ millions. The pre-war export amounted to 10 million gallons.

Furniture and cabinet-making is an industry which almost fully satisfies the home market, and some British furniture goes out to the Colonies. London is an important centre of manufacture, while the cottage industry of chair-making, which drew raw material from the Chiltern beech-woods, has been transformed into a large factory industry at High Wycombe. Local timber, however, by no means suffices for the industry, imported oak, mahogany and other furniture woods costing £16 millions. Timber, chiefly Scandinavian softwoods, imported for building and general purposes, costs £28 millions, and pit-props for the coal-mines over £5 millions: the whole bill for purchases abroad is over £49 millions, which could be materially reduced by the adoption of the reafforestation programme recommended by the Forestry Sub-Committee of the Ministry of Reconstruction in 1918. Part of the pit-prop supply is now obtained from the French *Landes*, which were afforested by the State after the Napoleonic Wars, and are now a source of revenue, besides having proved invaluable during the War. Reafforestation is in progress in Western Scotland.

It may be observed that in those countries in which most effective use is made of the land—Denmark, Holland (where the Zuyder Zee is being reclaimed), Belgium, France—from all of which Great Britain derives agricultural produce which might be home grown, agriculture is an industry of dominant, and not as in Great Britain of apparently inferior, importance. Hence agricultural interests are there effectively represented in Parliament, where agricultural problems are well understood, while financial facilities for agricultural enterprises are far more readily obtained than in Britain, where Banking is the monopoly of a small group of City financiers. It should be a function of the State to review the Nation's Commercial Balance Sheet as a whole, and to prevent such errors as overbuying of a particular raw material, glutting a particular market, buying from abroad goods which could be produced at home, with many other mistakes which result from purely individualistic methods.

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Trade Relations.—Among the most striking tendencies of modern trade is its increasing concentration upon a few points of entry and departure, with a corresponding concentration of business houses in a few enormous cities. Nearly two-thirds alike of British import and export trade passes through London or the Mersey (Liverpool and Manchester). The former takes the lead as regards imports, no less than 39 per cent. of the total value for Great Britain, while in the case of exports 35 per cent. of the total value goes by the Mersey. Except for certain bulk commodities, such as cotton and grain, London is overwhelmingly the premier market for imported goods of all classes, and hence has an enormous re-distributing trade, including re-exports abroad of foreign and colonial produce.

The trade of even the secondary ports is petty by comparison with that of Liverpool-Manchester and London. The Humber group (Hull, Grimsby and Goole) handle 8 per cent. of both ingoing and outgoing traffic, Southampton has only $3\frac{1}{2}$ per cent. of imports, but 6 per cent. of exports, while Glasgow has only $2\frac{1}{2}$ per cent. of imports and 5 per cent. of exports. A classification of ports by weight of cargoes moved would, of course, give a somewhat different distribution, notably where coal is handled. The total inward trade is much greater in quantity than the outward, and consists of bulky goods (raw materials and foodstuffs) which occupy much more space, so that a large proportion of ships must leave Britain in ballast, with the result that outward freights are normally cheap. It is only from the coal ports of South Wales, the Tyne and the Forth that there is a striking excess of exports over imports, and this has diminished owing to depression in the coal trade.

In 1913 the greatest volume of trade was done with Europe, and as regards individual countries, the greatest European trade was done with Germany, which sold to us goods valued at £76 millions, and purchased goods valued at £60 millions—i.e. the normal 5 to 4 ratio was preserved. The sales to Germany included re-export of foreign and Colonial produce, for which again that country was our best European customer. In 1919 Britain sold to Europe goods valued at nearly £600 millions—equivalent to pre-war sales of about £200 millions—and whereas in return this country should have commanded European goods to the value of £700 millions, actually the receipts of goods amounted merely to £250 millions. In other words, Europe became very greatly in debt to Britain, and its economic restoration became an urgent necessity. In 1913 the Americas ranked next to Europe as regards volume of business done, British purchases being very decidedly in excess of the 5 to 4 ratio, largely owing to the necessary great expenditure on dear raw cotton in the United States. In 1919, taking the old scale of values, sales to the Americas were barely a quarter of what they had formerly been, so that taking the pre-war ratio of sales to purchases, only some £200 millions should have been expended on American goods. Actually the colossal sum of £826 millions was spent, that is to say, America (the United States and Canada) accumulated large credits in this country. Trade with Asia is normally about half the volume of trade with the Americas, and sales in that continent are in excess of purchases.

An official analysis of the trade of 1928 showed that 5 per cent. of exports went to the Irish Free State, besides 8 per cent. of re-exports. Only $3\frac{1}{2}$ per cent. of imports came from that country, so that the trade is one-sided. Leaving the Free State aside, and thus allowing better for comparison

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with conditions of a previous decade, it was calculated that the largest percentage of imports—16.4 per cent.—came from the United States, while Argentine stood second. Seven countries—Germany, France, Denmark, Canada, Australia, New Zealand and India—supplied rather more or less than 5 per cent. apiece. The export trade is differently distributed. India takes just over 12 per cent., Australia about 8 per cent. The United States takes only $6\frac{1}{4}$ per cent., while in the group taking about 5 per cent. apiece are Germany, Canada, the Union of S. Africa, and Argentina.

The capacity of a market depends, of course, on the size of the population and on their standard of living. When the per capita purchases of British goods are analysed, they show that the New Zealander heads the list with an annual expenditure of £13 5s. 5d.; next follows the Irishman, and in turn the inhabitants of Australia, Union of South Africa, British Malaya and Canada. Among foreign customers, the inhabitants of Argentina, Holland, Norway and Denmark all consume the same proportion of British goods, spending about £2 17s. 6d. apiece, while the per capita expenditure of the inhabitants of the United States is 7s. 9d.

Great Britain's purchases of food from overseas are enormous, including £100 millions for meat, of which the largest single item is bacon, nearly £40 millions. Imported butter costs even more than bacon, no less than £48 millions; while other items are eggs, £16 millions; oranges, £8½ millions; apples, £7 millions; bananas, nearly £6 millions; tomatoes, over £4 millions; and potatoes, nearly £4 millions. The combined trade of Britain with Australasia and Africa is about equal to the total with Asia, the Australasian trade being slightly the more important of the two.

Broadly speaking, it would appear that Great Britain should seek to better her position as a seller in American markets—especially Canadian, West Indian, Brazilian, Argentine and Mexican: she should foster the economic recovery of eastern and south-eastern Europe, so as to buy food-stuffs and raw materials from the east and south of that continent: she should take steps to meet growing American and Japanese competition in the Indian and Far Eastern markets: she should not merely maintain, but increase her existing lead in the Australasian and African markets. Since Britain has a world-wide reputation for quality in many classes of goods, it is policy also for manufacturers to concentrate their efforts upon monopolizing the market which exists among well-to-do people throughout the world for articles guaranteed to be the best obtainable of their kind. Such a trade is not threatened by less experienced competitors, nor by growing disadvantages with respect to power and raw material, since a cheap article is not in question.

Attention should be directed towards making the Empire self-contained as regards the major staples. At present 70 per cent. of the vital raw cotton supply comes from the United States, and over 20 per cent. from Egypt, now independent: only a little over 4 per cent. comes from British sources. Many regions with suitable climate and soil conditions lie within the Empire: the organization of labour, capital and transport, however, present great difficulties in most of such areas, and the British Cotton Growing Association has not made the hoped-for progress. Oil is another commodity of which there are no large supplies within the Empire. The United States just now holds almost a monopoly, but it appears that Russia is by no means permanently relegated to the third place, while S. America

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has also undeveloped possibilities, in addition to those of Persia and of Mesopotamia. Should, however, the promise of a new field in Western Canada be fulfilled the situation will be entirely changed. Sugar is at present bought mainly from Cuba and from Java—two countries with which the return trade is by no means large. There are possibilities of beet cultivation in Canada and Australia, but more immediately advantageous would be the increase of purchases from Central and Eastern Europe. More cane-sugar could be produced, too, in British Polynesia, and these island groups, provided the labour difficulty were solved, could diminish the need for foreign imports of tropical oil-seeds (including copra), fibres, and food-stuffs, such as cacao and coffee.

As regards metals, Great Britain is favourably placed in respect of gold (from South Africa and Australia), tin (from Malay), nickel, silver, cobalt and asbestos (from Canada), manganese (from India), zinc (from Australia), chromium (from Rhodesia). The United States is better placed as regards copper and lead, and, unlike Great Britain, is not forced to import iron ore. Indeed, apart from a lack of tin, the U.S.A. has undoubtedly the greatest advantages of any country in the world as regards mineral wealth. But Siberia and China have great untapped resources, and from what has been said above it is clear that it will be increasingly possible in future years for Britain to purchase more goods from the Old World and less from the New, thereby partly removing the anomalies in the balance of trade, and the resulting anomalies in shipping freights and the rate of exchange.

General Information.—The unit of currency in the British Isles is the gold sovereign, containing 113 grains of fine gold. The debased shilling (one-twentieth of a sovereign) contains 40·36 grains of fine silver, and is legal tender up to £2. Bank of England Notes and £1 and 10s. Treasury Notes are also legal tender, the total note issue on March 20th, 1928, being £414 millions. There is no State Bank in Britain, but the Bank of England, the Bank of Scotland and the Bank of Ireland have Royal Charters, and the first and last named lend money to the Government. The principal Joint Stock banks have, by amalgamation, been reduced to five, these being : Barclays, Ltd ; Lloyds, Ltd. ; Westminster, Ltd. ; Midland, Ltd. ; National Provincial and Union Bank of England, Ltd. All the important Colonial Banks have offices in London, besides the following leading foreign banks : Crédit Lyonnais, and Comptoir Nationale d'Escompte de Paris (France) ; Banca Commerciale Italiana, and Credito Italiano (Italy) ; Bank of Athens (Greece) ; Banco Nacional Ultramarino (Portugal) ; Banque Belge pour l'Etranger (Belgium) ; Bank of Spain (Spain) ; Ottoman Bank (Turkey) ; Yokohama Specie Bank (Japan) ; Swiss Bank Corporation (Switzerland) ; National Bank of Egypt (Egypt) ; International Banking Corporation and Trust Company of North America (U.S.A.). The Standard Bank of South Africa, the Anglo-South American Bank, the Hong Kong and Shanghai Banking Corporation, and the Chartered Bank of India, Australia and China, are British Banks doing large business in London and the regions named in their titles.

The British unit of length is the standard yard : of weight the standard pound : and of capacity the standard gallon. The metric system is employed in scientific work only, and this constitutes a grave disadvantage in respect of Continental trade.

The Government Department of Overseas Trade is thoroughly organized,

and detailed information of existing conditions in all foreign markets can be immediately obtained. Great Britain, with Northern Ireland, is a member of the League of Nations.

GREECE

Area and Population.—The Republic of Greece, which includes, besides Old Greece, the territories of Southern Epirus, Macedonia, Western Thrace, the Ægean Islands and Crete, has an area of 50,000 square miles, and a population of 6 millions, according to the Census of 1928. The Turks have since 1924 recovered Smyrna and the district behind that port (the greater part of the Turkish vilayet of Aidin), this Asiatic Territory covering some 8,000 square miles and having a population of between 1½ and 2 millions, of whom the Greeks have been repatriated. The Greeks have still a strong commercial position in the Near East, and their opportunities for carrying on their traditional occupations of traders and merchant seamen are greatly enlarged. Figures for the total trade of the present State reached £50 millions or over £8 *per capita* in 1928. Imports are greatly in excess of exports, but the deficiency is in part at least covered by earnings of shipping, by Greek money invested abroad, by the money sent home by emigrants, and by money raised for the refugees. The capital of Greece, Athens, has a population (including its outport, the Piræus) of 750,000, while Salonica, the second city, in Macedonia, is about half as large. Other considerable towns are Patras, the second port of Greece Proper (60,000), Corfu and Volo (Old Greek ports), Canea and Candia (Cretan ports), Kavalla (the famous tobacco port), all with between 25,000 and 50,000 inhabitants. Apart from the leading ports, Greece has no towns that rank above mere market centres, for the people are engaged in agriculture and commerce, and manufacturing industries are negligible. The majority of the inhabitants belong to the Greek Orthodox Church, since the repatriation of the minority of Mohammedan Turks in Macedonia and Thrace. There are large numbers of Jews in the towns, notably in Salonica, where they are in a majority. Education is not very advanced, and though Athens has an important University, the proportion of illiterates, especially among women and girls, is high. The standard of living among the peasantry is low, and poverty has led to considerable emigration, principally to the United States.

Position and General Physical Conditions.—Continental Greece forms the southern portion of the Balkan Peninsula, and marches with Albania, Serbia, Bulgaria and the Turkish Territory of Eastern Thrace behind Stamboul. To the west lie the Ionian Islands (including Corfu and Zante), to the east the large island of Eubœa, the Sporades and the Cyclades and the Dodecanese (of which Rhodes remains Italian) all lying in the Ægean Sea, and to the South, in the Mediterranean Sea, the large island of Crete. Stretching between latitudes 35° N. and 42° N., the whole of Greater Greece enjoys the type of climate known as "Mediterranean," that is to say it is very hot in summer, and this season is also one of drought, while rainy mild weather characterizes the winter months. Regions opening westwards, especially Epirus and the Pindus Range, have

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a heavier rainfall than regions opening east, while Thrace and Macedonia, being more exposed to cold winds from the east and north-east, have less pleasant winters than the lands farther south, and the liability to frost renders them unsuitable for the olive. The whole of Greece is mountainous in character, and the lowlands consist of isolated valleys, small plains, and hill-girt basins, all of very restricted area. Intercommunication between the islands and the coasts of Europe is necessarily by water, and so broken is the mainland territory by rocky promontories, and deep bays and gulfs, that here, too, communication is difficult, and the sea-ways are often the most direct routes between one agricultural centre and another.

The principal lowland is the fertile Plain of Thessaly, in old Greece, which opens southward to the Gulf of Volo; farther south are the Plains of Boeotia, where the draining of Lake Copais has added a rich tract to the arable land. Behind Salonica lie the Plains of Macedonia and Seres, drained by the Vardar and Struma, of which the former opens an important route way leading through the heart of Serbia to Central Europe. Farther east lie the Plains of Thrace, drained by the Maritza River and sheltered by the Rhodope Mountains to the north.

The chief mountain range is the Pindus, running southwards from Epirus, which, after throwing off spurs to the East, continues through the Peloponnesus as the Taygetus Range, running to Cape Matapan, and then reappears successively as the backbone of the islands of Crete and Rhodes, and as the Lycian Taurus of Asia Minor. In Epirus and on the Pindus Mountains there are forests of oak and pine, but partly owing to the dry character of the soil (many of the hills are limestone), partly owing to careless felling of wood for charcoal, and partly owing to the ravages of goats, large areas are covered only with scrub oak, or with evergreen bushes (ilex, broom, etc.), and hence are of little value.

Human and Economic Conditions.—The people of Greece are in the first instance farmers, producing a surplus of food-stuffs which is capable of very considerable increase, especially in Thrace and Macedonia, where Turkish misrule and unsettled political conditions have hitherto discouraged the peasants from working their land to its full capacity. Except in the most favoured localities, e.g. Thessaly, the farming methods are primitive and unscientific, and owing to its hilly nature, the country does not lend itself to the use of agricultural machinery. Small holdings are the rule, but there is little knowledge of intensive cultivation, and lack of water is often a difficulty.

The climate is everywhere suited to the growth of **wheat**, which is the most important cereal crop, barley and maize being of secondary importance. Old Greece normally imported grain, in spite of the large acreage devoted to wheat, but Thrace had normally a surplus, and as the wheat lands of Thessaly could be greatly extended, it is reasonable to suppose that the country as a whole could be made self-supporting in this respect. Actually, however, only a half to two-thirds of the necessary bread-stuffs are home-grown, since cheap American and Bulgarian grain is so readily obtainable. A little *rice* is grown in the lowlands of Macedonia, where water is available for irrigation, but an extension of this industry is not very probable, as owing to the dwindling of the rivers during the summer drought, only a few favoured districts can be artificially watered. **Cotton** is grown in many districts, notably in Thessaly, on the bed of the former Lake Copais, and

behind Salonica, and although the output is not great (3,000 to 4,000 tons of ginned cotton), it serves as a basis for a minor textile industry of considerable local importance. Among the leading commercial crops **tobacco** is of first importance, for not only does Greece hold the famous fields of Xanthi and Gumurdjina, where the fine Turkish leaf marketed at Kavalla is grown, but there are also tobaccos of good quality grown behind Salonica and in Thessaly. The total exports of tobacco—which goes to Germany, Italy and the United States for blending, and for Turkish cigarettes—have a value of £8-9 millions. Ranking with tobacco as of first importance is the trade in *dried fruits*, including derivatives of the grape, which is widely grown. **Currants** have long been the staple of the commerce between Old Greece and Western Europe. The currant vine is very local in its distribution, the principal producing areas being the north and west of the Peloponnesus, and the southern Ionian Islands, with Patras and Zante as the chief markets. The world's consumption of currants is limited, and as the growers have frequently been ruined by over-production, the area under vines is strictly limited, and the whole crop is bought up by a single association of merchants at a fixed price, any surplus being used for the distillation of alcohol. Hence this is not an expanding industry, except in so far as the consumption of currants can be stimulated by a publicity campaign such as has recently been attempted. The crop is from 120,000 to 150,000 tons. Both in the Cyclades and in the Peloponnesus there is a large output of *figs*, which although of inferior quality, and hence fetching a much lower price, are sent abroad in considerable quantity, the chief market and port being Kalamata in the extreme south. The *wines* of Greece, though abundant in quantity, are not of high quality, and are mainly consumed within the boundaries of Greater Greece or by Greeks abroad. Latterly some of the finer wines of the Cyclades and Cephathonia have found an increasing market in France and Italy. *Must* is sent to Great Britain, and *brandy* is distilled from the surplus currant crop.

The **olive** is widely grown in the valleys and islands of Greece Proper, where the trees do not suffer from frost, and the output of olive-oil (over 30 million gallons) is more than sufficient for local needs. The oil is of excellent quality, but the methods of refining are crude, and in consequence the export trade in oil is not so valuable as should be the case.

Citrus fruits, including citrons, mandarins, oranges and lemons, do well in the southern valleys and in the Cyclades. Fresh, they find a market in neighbouring countries, while citrons packed in brine are sent to Great Britain and America. *Nuts* and almonds also find very suitable climatic conditions, as does the mulberry tree, so that some *silk* (800-1,000 tons of cocoons) is produced. The chief centres are Thessaly, Epirus, the Peloponnesus, Macedonia and Thrace, and in the two last-named districts the industry might be fostered with advantage.

The dry summer and the hilly nature of the country are unsuitable to cattle-breeding, and outside the Plains of Thessaly these animals are few. Donkeys are employed as draught and pack animals, and also mules, since many of the mountain roads are unsuited to wheeled traffic. The most important animal industry is **sheep** breeding, the flocks, which number about 6½ millions, being led up into the mountains in summer, and down to the plains and valleys in winter. The shepherds are usually Vlachs, an indigenous people of different racial origin from the Greeks. *Goats* are com-

Greece.

monly kept by the peasant-farmers to provide milk and cheese, although they do a great deal of damage to trees as they browse on the hill-sides. *Pigs* are more important in the Epirus and Macedonia, where there are oak and beech woods.

The **mining** industry of Greece is of considerable importance, although the output fluctuates greatly according to the state of the market, all the ores being shipped abroad. The Laurium district, to the south-east of Athens, produces **iron**, lead and zinc, and iron ore also comes from Seriphos, one of the Cyclades. **Chrome** iron ore comes from Thessaly, and the island of Naxos is an important source of **emery**. The Chalcidice peninsula is likewise rich in minerals, including iron, manganese, antimony and arsenic, while at Floriania, west of Salonica, oil-wells have been sunk, which are said to be promising. There is very little coal, but some **lignite** is mined. The lack of local fuel has contributed to the rapid destruction of the mountain forests, of which both the direct and indirect consequences are serious. The Government is therefore taking forest administration in hand. The **marble** quarries of Athens have long been famous, and the industry in building and ornamental stones, as well as in minerals proper, is capable of expansion, if further foreign capital is forthcoming. The total output of all minerals is however valued at under £1 million.

The industries of Greece are of local importance only, with the exception of the flourishing manufacture of **carpets**, which has been removed from Smyrna with the transference of the Greek population from that city and district. This industry is organized largely by British merchants, and the export value before the War was about £½ million. Continental Greece has a small *cotton* industry, the spinning mills being at Liyadia, Trikkala and Volo, i.e. near the cotton-fields, and the weaving centres at the chief ports, Athens, Piræus, Syra, Volo, Salonica, etc., where foreign yarn can easily be imported. The output, however, does not by any means suffice for local consumption. There is likewise some small production of silks and woollens, and the peasantry wear woollen home-spuns. *Soap* from olive-oil is prepared at Athens, Eleusis, Canea and Candia.

Trade Relations.—All parts of Continental Greece are linked up by rail, although from the nature of the country the routes followed are circuitous. Salonica is the terminus of a main route running via Belgrade and Vienna to Central and Western Europe. Piræus is the principal port of Greece proper, the trade of Patras having declined, since the opening of the Corinth ship canal made the capital and its outport more directly accessible from the west. This canal is available for vessels drawing up to 26½ ft. At Piræus goods must be lightered, and further accommodation is urgently needed. Syra is the shipping centre for the Ægean, and is in daily communication with the mainland. Vessels drawing 25 ft. can moor at the quays. Volo is an important secondary port.

Now that tobacco has superseded currants as the leading export, Great Britain is no longer the leading market for Greek produce. Exports go almost equally to the United States, Germany and Italy, which take two-thirds of the total: Great Britain takes only about 12 per cent. The United States takes the largest share in the import trade, since, in addition to supplying the whole range of manufactures, she supplies grain. Great Britain comes next, supplying a large proportion of the textiles, besides

Greece.

coal, iron goods and machinery. France and Germany have an almost equal place in supplying manufactures, while timber comes from Rumania and Yugoslavia, sugar from Czechoslovakia, mineral oil from Rumania. Italy is a strong competitor with Great Britain in respect of cotton and artificial silk textiles.

General Information.—The unit of currency in Greece is the *drachma*, equivalent to the gold franc, and therefore formerly worth about $9\frac{1}{2}d.$ or 25.225 *drachmai* = £1 sterling. It has been stabilized at the rate of 375 *drachmai* to the pound sterling. The Bank of Greece alone is authorized to issue currency notes, which are at present the main medium of circulation. The chief banking establishments with London offices are the Bank of Athens and the Ionian Bank.

The metric system of weights and measures has been adopted, but the old units are still largely in use, notably the *oke* of 2·8 lb. and the *stater* of 123 lb. Oil and wine are sold by the barrel, of which the capacity varies with the locality.

Mails take 4 days to reach Athens, and four days to reach Salonica (overland). There is a British Consul-General at Salonica, besides Consular Representatives at the Piræus, Patras, Canea, Corfu, Syra, Volo, Zante and Candia. A Commercial Secretary is attached to the British Legation.

GREENLAND

Greenland is a colonial possession of Denmark, the occupied territory having an area of nearly 47,000 square miles (rather smaller than England), and a population of 14,500, of whom all but 300 Europeans are Eskimos. Godthaab is the principal settlement. The colony is the coastal fringe of a vast snow-covered land stretching from latitude 60° N. far within the Arctic Regions, and lying between Iceland and Northern Canada. The natives are seal and whale fishers, and fish products are exported, but the most valuable article of commerce is *cryolite*. Its export is the only part of the trade outside the State monopoly, and is worth about £500,000 annually.

GRENADA

See **British West Indies (Windward Islands)**, p. 92.

GRIQUALAND

See **British South Africa**, p. 78.

GUADELOUPE

Area and Population.—The French Colony of Guadeloupe is administered by a Governor, it includes, besides Guadeloupe itself, several small islands, Marie Galante, Désirade, and others, and has a total area of 688 square miles, and a population of 240,000 (over 300 per square

Guatemala.

mile). The foreign trade, which during the period of inflated prices had reached over £4 millions annually, is now £2½ millions, or £10 a head. Exports are much in excess of imports. Negroes and coloured persons form the bulk of the population. Pointe-à-Pitre, the chief harbour, and the finest in the West Indies, has 26,000 inhabitants, while Basse-Terre, the seat of government, has 9,000.

General Conditions.—Guadeloupe lies in latitude 16° N., and forms part of the island chain of the Lesser Antilles, lying between the British West Indian Colonies of Montserrat and Dominica. These tropical islands are mountainous and of volcanic origin, and are very healthy and fertile. The outstanding economic product is **sugar**, of which 34,000 tons were produced in 1926. There is also a considerable output of *rum*, and the secondary money crops are *coffee* (which is of superior quality), *cacao* and *vanilla*. Bananas, manioc, maize, vegetables and tobacco are grown for local use. The exports, favoured by preferential tariff, go mainly to France, while the imports come largely from the United States.

The unit of currency is the *franc*. The chief banking establishment is the Banque de la Guadeloupe. There are also branches of the Royal Bank of Canada. Steamship connections with France and the United States are good. Mails take 13–15 days. Telegraph communication overseas is by wireless. There is a British Consul at Pointe-à-Pitre.

GUAM

General Information.—The Pacific island of Guam is one of the Mariana Group, and is under the jurisdiction of the Navy Department of the United States. The area of the island is 210 square miles, and the native population 17,000. Lying between Hawaii and the Philippines, the island is an important West Pacific base for the American Navy, and has cable and radio communication with all parts of the world. The harbour is at Apra. The rest of the island group is mandated to Japan.

GUATEMALA

Area and Population.—The Republic of Guatemala has an area of 42,300 square miles (rather smaller than England) and a population of 2 millions. Of these the majority are of pure Indian descent, and of the remainder all are half-castes except for some tens of thousands of persons of Spanish descent living chiefly in the large cities. The capital, Guatemala City, which has 116,000 inhabitants, was partially destroyed by earthquake in 1917. Quezaltenango, Coban and Totonicapan have each about 30,000 inhabitants. All are inland cities. The total trade has increased from about £6½ millions to £12½ millions, or just over £6 a head, and the country is prospering, as is shown by the continued excess of revenue over expenditure, and of exports over imports. Much German capital is invested in the Republic, chiefly in coffee plantations.

General Physical Conditions.—Guatemala lies in Central America, between latitudes 14° and 18° N., i.e. entirely within the tropics.

Guatemala.

The climate is hot and wet, especially in summer, but the interior is elevated and healthy, and the bulk of the population live on the mountain slopes and on the plateau at an elevation of from 1,000 to 5,000 ft. Northwards the Republic extends into the peninsula of Yucatan, and this district (Peten) is comparatively low. Eastwards it opens to a deeply penetrating Gulf of the Caribbean Sea, having its mouth between British Honduras and the Republic of Honduras. Westward the Cordillera bordering the highlands

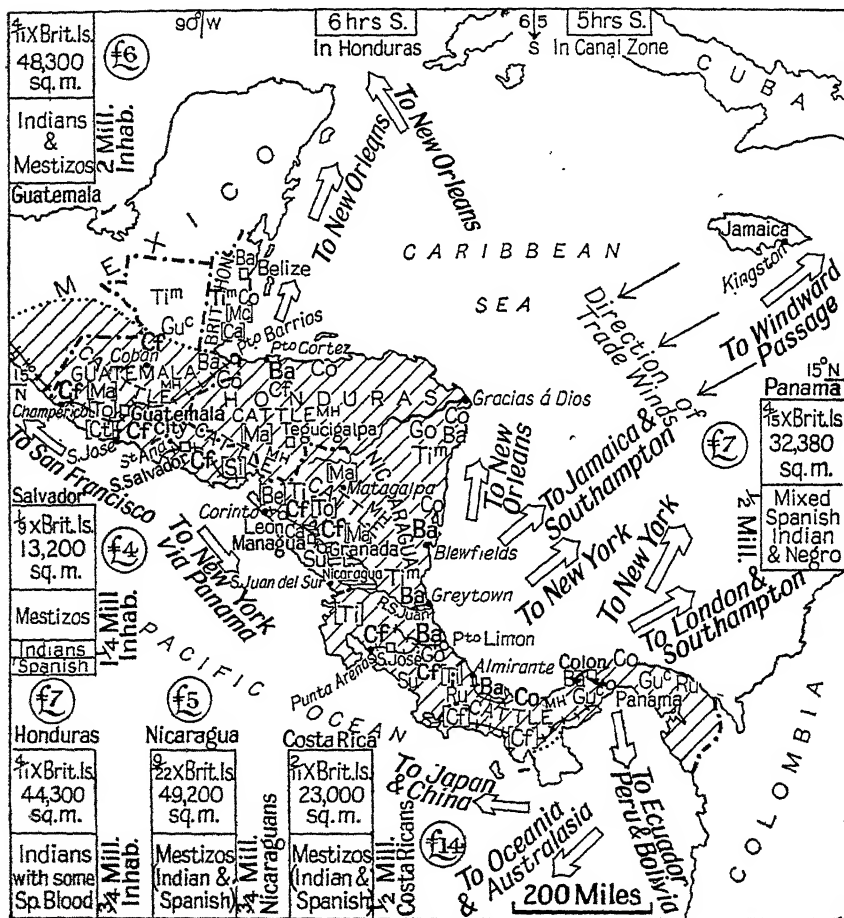


FIG. 50.—CENTRAL AMERICA.

falls steeply to the Pacific Ocean. The lower slopes of the mountains and the plains of the Peten district are clothed with tropical forest. At higher elevations, where the greater part of the land is cleared for agriculture, the vegetation is sub-tropical, while on the high plateaus there are about three-quarter million acres of natural pasture of the savannah type.

Human and Economic Conditions.—Maize, beans and wheat are raised on the uplands for the local food supply, and such crops as

Guiana, British.

plantains, bananas, cacao, rice and sweet potatoes for the same purpose on the lowlands. On the coast lands facing the Caribbean Sea, **bananas** are grown for export (value £ $\frac{1}{2}$ million), and from the forests of the Peten district *mahogany*, *chicle* (gum), and a little *logwood* are sent abroad through British Honduras (Belize) or Mexico. The chief money crop of Guatemala is, however, **coffee**, which grows best at elevations of 1,000 to 5,000 ft., the chief plantations being on the Pacific slopes and round Coban. The output in 1927 was $\frac{3}{4}$ million bags, a considerable increase over the crops of previous years. The export is worth about £6 millions. **Sugar** is also an important crop, and there is a small surplus for export which should increase, as the export duty has been abolished. *Tobacco* is grown and manufactured in sufficient quantities for local use, and there is also a small *cotton* crop. **Cattle** rearing is important on the plateaus, and meat, milk and cheese are produced for local use, while hides are exported. *Chrome* iron ore is exploited.

Trade Relations.—Previous to the War the Guatemalan coffee went mainly to the United States and Germany, only a small proportion, together with bananas and some mahogany, coming to the United Kingdom. During the War, the United States captured all the German trade, and part of the British, and so took from 80 to 90 per cent. of Guatemalan exports, and supplied the bulk of the imports, although part of these appear in trade returns as from Belize in British Honduras. To-day the United States supply 55 per cent. of the imports, Great Britain 13 per cent., and Germany 13 per cent., while Germany is second to the United States as regards export. The principal class of imports is cotton goods, followed by iron and steel goods, jute, bags, tools, automobiles and machinery.

A railway runs across the Republic from S. José on the Pacific coast, through Guatemala City, to Puerto Barrios, the chief seaport on the Caribbean Sea, which has shipping connections with New York and Jamaica. German boats call during the season to take coffee to Europe. Livingston, on the opposite side of the Gulf of Dulce, is the port for the Coban coffee region. Goods must be lightered at these ports. There is also a railway along the Pacific slope to the Mexican border. Transport is, however, still mainly by pack-mule, for roads are few and poor.

General Information.—The unit of currency is the gold *quetzal*, equivalent to the United States dollar, but only paper money and nickel or copper coins are in circulation. There is a National Bank, of which the function is to make agricultural loans, and otherwise assist the economic development of the country. The principal exchange Banks are the Bank of Guatemala and the International Bank of Guatemala, with London agents. The Anglo-South American Bank also does business in the Republic. Spanish weights and measures are in use, the chief being the *libra* (1·014 lb. avoirdupois), the *arroba* (25 libras) and the *quintal* (100 libras). The language spoken is Spanish, and Roman Catholicism, though not established, is the prevailing religion. Mails reach Guatemala in 16 to 20 days. There is a British Consul-General at Guatemala City, a Consul at Quezaltenango, Vice-Consuls at Livingston, Puerto Barrios and San José.

GUIANA, BRITISH

See **British Guiana**, p. 74.

GUIANA, DUTCHSee **Dutch Guiana**, p. 158.**GUIANA, FRENCH**See **French Guiana**, p. 189.**GUINEA, FRENCH**See **French West Africa**, p. 194.**GUINEA, PORTUGUESE**See **Portuguese Guinea**, p. 369.**GUINEA, SPANISH**See **Fernando Po**, p. 173.**HAITI REPUBLIC**

Area and Population.—The Republic of Haiti is, since 1915, virtually a Protectorate of the United States. The area is rather more than 10,000 square miles (one-third the area of Scotland), and the population over 2½ millions. The majority are negroes, but there are also mulattoes who are of mixed French and negro blood, the Republic having formerly been a French colony. Complete trade returns are not available, and the totals vary very considerably from year to year. During the War the imports and exports were small, and before 1914 their value was between £3 million and £4 millions only, an indication of the very backward and undeveloped state of the country. In 1918–19, however, the figure rose to £8 millions, since prices ruled high.¹ Lately the value has been round about £5 millions.

The capital and chief port, Port-au-Prince, has 120,000 inhabitants and possesses a fine harbour. Jacmel, on the south coast, has a population of 20,000; Cayes, a little farther west, has 15,000, and Cape Haiti, on the north coast, about 15,000.

Position and General Conditions.—The Republic of Haiti occupies the western part of the island of the same name, the eastern part being the rather more progressive negro republic of Santo Domingo. Haiti is one of the Greater Antilles, lying between Cuba and Porto Rico. It extends between 18° N. and 20° N., and hence has a tropical climate, but the summer heat is modified by the great length of coast line and by the mountainous character of the interior. The mountain chains run from east to west and form two westward stretching peninsulas, enclosing the great bay in which stands Port-au-Prince. The rainfall (chiefly in summer)

¹ For Map see **Dominican Republic**, p. 151.

Hawaii (Sandwich Islands).

is good, and the island is still largely forested, the trees including many valuable hardwoods. Hurricanes may occur destroying tree crops.

Human and Economic Conditions.—Haiti is exceedingly fertile, and the negro farmers grow bananas, sweet potatoes, sugar, maize, manioc, fruits and vegetables by very primitive methods for their own use. The **sugar** industry is capable of great development, and a large, up-to-date central has been established with American capital near Port-au-Prince. At present **coffee** is the most valuable export (41,000 tons), the quality, as in the neighbouring island of Jamaica, being very good, but a heavy export duty restricts the output. *Cotton* and *cacao* are exported in small quantities, and the forest products, including *logwood*, wild *honey*, and *chicle gum* make up a total of some importance. *Tobacco* and *sisal* cultivation are also being extended. Trade is chiefly with the United States, the imports including flour, lard and kerosene. Some cotton textiles come from the United Kingdom, besides hardware. A railway from Port-au-Prince to Cape Haiti is under construction. The mountains are rich in unworked minerals, including copper.

General Information.—The official language is French, and the religion Roman Catholic. Education is improving. The unit of currency is the *gourde* or dollar, worth one-quarter of a gold (U.S.) dollar. The National Bank is controlled by the National City Bank of New York, and the Royal Bank of Canada has branches at Port-au-Prince and elsewhere. The metric system of weights and measures has been officially adopted (1921). Mails arrive via U.S.A. in 13–16 days. There is cable connection with Cuba and thence with North America. There is a British Consul at Port-au-Prince.

HAWAII (SANDWICH ISLANDS)

Area and Population.—The Hawaiian Islands were annexed by the United States in 1898, and are under the administration of a Governor. Since the annexation the population and prosperity of the group have rapidly increased. The islands cover 6,500 square miles (rather less than Wales), the largest being Hawaii (4,000 square miles), followed by Maui (700 square miles), Oahu and Kauai. The inhabitants number rather over 330,000, of whom only 40,000 (12 per cent.) are native Hawaiians. Japanese form nearly 50 per cent. of the total (135,000), and there are about 25,000 Chinese, 30,000 Portuguese and 50,000 Filipinos. Americans, British and other northern Europeans total 37,000. The growth of savings bank deposits and banking accounts indicates a high level of prosperity. Labour is supplied by voluntary immigration from Asia, wages being high and conditions generally good. Colour prejudices are absent, and there is much racial intermarriage. The foreign trade of 1927 totalled £40 millions, 55 per cent. of this representing exports. This gives a *per capita* trade of over £150, as compared with £20 in the British Fiji Islands, which are very similar in area and character.

The chief town, Honolulu, on the lee-shore of Oahu, has 113,000 inhabitants, and serves as an entrepôt not only for the island group, but for the North Pacific generally. There is a valuable tourist industry.*

Hawaii (Sandwich Islands).**Position, Climate and General Physical Conditions.**

—The Hawaiian Islands form a chain stretching from north-west to south-east across the Tropic of Cancer in the middle of the North Pacific Ocean. They are of volcanic origin, and hence are mountainous in character, but have a highly fertile soil. Lying as they do in the track of the north-east trade winds, the islands have sufficient rainfall to support a luxuriant forest growth, which is fostered also by the uniform heat, which rarely becomes excessive. The climate resembles that of the West Indies, with the advantage, however, of freedom from destructive hurricanes and earthquakes.

Human and Economic Conditions.—The staple product of the islands is **sugar**, the plantations being conducted on thoroughly up-to-date lines, with modern machinery, and such important adjuncts as light railways or flumes to carry the cane to the centrals. Great attention is bestowed upon the selection of canes, and the fighting of parasites and pests. Nearly two-thirds of the crop of 800,000 short tons is grown on irrigated lands, the rest on unirrigated. The yield can be trebled when the fields are irrigated, but more manure is required. Nitrates are readily shipped from Chile, and there are vast deposits of phosphate rock on various Pacific Islands which can be drawn upon. The value of the sugar crop of 1927 was £14 millions.

Next in importance to sugar is **fruit**, pineapples taking the lead, while bananas are second in importance. The 1927 pineapple "pack" was 8½ million cases of two dozen tins, worth over £7 millions. The high profits obtained lead to concentration on the sugar and fruit industries, but the conditions are very suited to *coffee* planting, and there is a growing export; *rice* is grown to feed the Asiatics; and other valuable crops that succeed are rubber, cotton and sisal, the last named in the drier districts. There is also a pastoral industry, cattle being reared for meat and milk to supply local needs.

Trade Relations.—The trade of the Hawaiian Islands is almost exclusively with the United States, into which country the sugar enters duty free, being shipped direct to both Pacific and (via Panama Canal) Atlantic refineries. Only 5 per cent. of the crop is locally refined. The tropical fruits and minor products are also marketed in the States. In return, textile goods (chiefly cottons), iron and steel goods, machinery, flour, canned goods and miscellaneous manufactures are sent from America, and there are minor imports from Japan, Hongkong and Sydney, besides nitrates from Chile, potash from Germany, and jute bags from India.

Honolulu harbour will admit the largest steamers afloat, and is a port of call for nearly all trans-Pacific vessels. A few miles away is Pearl Harbour, a fortified naval station, with a large dry dock, constructed by the Federal Government for the control of the Panama Canal. Hilo on Hawaii, and Kahului on Maui, both sugar ports, are protected by breakwaters. The total tonnage entering and clearing in 1928 was over 10 millions.

General Information.—The coinage, weights and measures of Hawaii are those of the United States. The First National Bank of Hawaii acts as banker to the United States Government; there are, besides the Yokohama Specie Bank (with a London office), another Japanese bank and the Bank of Hawaii. Apart from the Japanese and Chinese the population are Christians. Communications by road, rail and water are good, and

Holland (The Netherlands).

there is cable and wireless connection with both sides of the Pacific. Mails arrive via Vancouver in 17 days or via San Francisco in 19 days. There is a British Consul at Honolulu.

HEDJAZ

See **Arabia**, p. 18.

HOLLAND (THE NETHERLANDS)

Area and Population.—The Kingdom of Holland has an area of 13,000 square miles (rather more than one-tenth the area of the British Isles), and a population of nearly $7\frac{1}{2}$ millions, of whom nearly half are Protestants and nearly one-third Roman Catholics. The total trade for 1919–20 was valued at £418 millions, or £62 per head of population, that for 1928 at £389 millions, or £52 *per capita*, these figures being slightly improved upon in 1929. The imports normally exceed the exports, since the Dutch perform important services to other nations as merchants, shippers and bankers, and these invisible exports make up the balance of trade. The figures given refer to merchandise of domestic origin or for domestic consumption. The weight of the goods in transit in 1919–20 was 5·7 million tons, as against a weight of 13·5 million tons for domestic merchandise. The Dutch port of Rotterdam is consequently a leading European entrepôt, handling a large volume of transit and re-export trade. This city has half a million inhabitants, but is exceeded in size by Amsterdam, a seaport handling in the main goods for Dutch consumption, and having 700,000 inhabitants. At both these cities there are important sales of the produce (including cacao, coffee, tea, oil-seeds, rubber, tin) of the wealthy Dutch East Indies. The Hague, which is the Court Capital, has 400,000 inhabitants, and Utrecht, the largest inland city, has 150,000. Other important centres of population are Groningen in the extreme north, Haarlem, Leyden (with a University), Arnhem, and Dordrecht, the last-named formerly the leading port on the Lower Rhine, but long displaced by Rotterdam.

Position, Climate and General Physical Conditions.

—Holland lies in the same latitude as Southern England, and its climate much resembles that of the Fen District, although, as it lies open to the North Sea and to the westerly winds, it is somewhat wetter, especially in summer and autumn. The winters, too, are rather colder and more of the Continental type. Holland is unique in that a large section of the country, comprising the western margin as far inland as Utrecht, lies below sea-level, and is protected from encroachment by dunes and dykes. From this area (the polders) the rainfall cannot drain off in the usual way, so that windmills and steam-mills are employed to pump the water into canals, which are above the level of the fields, and discharge into the sea. Over much of the land outside the polders there is likewise not sufficient slope to ensure drainage, and the same methods must be employed. The draining and dyking of the Zuider Zee, which is now definitely in progress, will add another half a million acres of polder-land to the total. Some 5,000 fishermen will be displaced, but a fresh-water lake will be created, and the

Holland (The Netherlands).

extent depend upon local supplies of raw material. In this respect **strawboard**, made largely in the north-east, is exceptional, but both the *linen* and *woollen* industries took their rise from home-grown flax and wool, although yarn is now imported, as is also **cotton** yarn for the cotton manufacture, side by side with which is now carried on a large manufacture of *artificial silk*. Raw cotton is spun on a small scale in Twente, near the eastern frontier. As regards textiles, however, Holland is by no means self-sufficient. Since vast quantities of colonial wares, including those from the Dutch East Indies, are handled at Rotterdam and Amsterdam, these naturally form the basis of many industries, notably *cigar-making*, *cocoa* and *chocolate* manufacture, *sugar-refining*, *rubber* manufacture, and the making of cattle-cake, soap, candles, and especially **margarine** (the latter on a very large scale indeed) from various vegetable oils and fats—ground nuts, soya beans, sesame, copra, colza and linseed. Scandinavian **timber** is largely imported and worked at Zaandam and Amsterdam, while the south of the country receives timber rafts from Germany by the Rhine. There is a large **glass** industry, bottles and lamp-glasses being exported, and the enterprises include a large manufacture of *electric filament lamps* at Eindhoven and Venloo, in the south-east. *Preserves* and *spirits* must also be mentioned, and the *diamond-cutting* industry of Amsterdam, which is almost a monopoly. There are large *engineering* works in the leading cities, and among types of machinery in which the Dutch manufacturers specialize are pumps for draining the fens, and dredgers for keeping open the mouths of the rivers and canals, where mud constantly accumulates.

Since Holland has a very long seaboard, and faces the Dogger Bank, the *fisheries* are important, and over 5,000 vessels are engaged either inshore or at sea, Ymuiden being the leading fishing port. The Dutch merchant fleet is also a large one, and the services it renders as carriers to foreign nations form an important item in the total of "invisible exports." The number of vessels is nearly 1,000, with a gross tonnage of over 1½ millions, and there are regular sailings to all parts of the globe. It is natural, therefore, that ship-repairing and *shipbuilding* should be carried on on a considerable scale, the number of vessels under construction normally reaching about 200, although most of these are small.

Trade Relations.—With its network of navigable water-ways, including the rivers Rhine, Maas and Scheldt, and 2,000 miles of canals, Holland can transport heavy goods cheaply to and from Germany and Belgium, or via Germany to Switzerland, while Rotterdam and to a less extent Amsterdam, with excellent overseas shipping connections, and every provision for handling and warehousing goods, are large markets for grain and for colonial produce, e.g. rice, cacao, tea, coffee, spices, oil-seeds, rubber, tobacco. Hence, as already mentioned, there is a great volume of goods in transit, and of re-exports. This entrepôt business is facilitated since Holland is a free-trading country. As has been mentioned, Germany and Great Britain, with their large industrial populations, take the greater part of Dutch farm produce, so that about 24 per cent. of the total exports go to Germany, and nearly 22 per cent. to Great Britain. The latter country takes the bulk of the bacon, margarine, condensed milk and garden produce, while Germany is the chief consumer of butter, cheese, eggs and fresh vegetables. Dutch cheese, too, finds a good market in Belgium, which takes 8 per cent. of the total exports, partly owing to proximity.

Honduras.

Dutch manufactures, especially piece goods and machinery, go in largest volume to the Dutch Indies, which take 9 per cent. of the total exports, but certain types of cotton textiles and special machinery come to Great Britain and Germany.

In respect of imports, the strongest position is held by Germany, with 27 per cent. of the total; Belgium follows with 16 per cent., and Great Britain, which once competed for the lead, now supplies only 9 per cent. Machinery, clothing, coal, coke and paper, come mainly from Germany, while Germany finds a strong competitor in Belgium in respect of iron and steel. Piece goods are bought more or less equally from Germany, Great Britain, Belgium and France, while Belgium has established herself first in supplying automobiles, the United States taking second place, and Germany third. Great Britain has a minor place in supplying machinery, iron, steel and coal, but takes the lead in respect of cotton yarns. Other considerable items in the import list are raw cotton from the United States, and to a certain extent from British India, coffee from the Dutch Indies and Brazil, cacao beans from British West Africa and Brazil. Oil-seeds are bought from a wide field, wherever they happen to be in good supply.

By far the greatest volume of trade passes through the Rhine ports, Rotterdam, The Hook and Vlaardingen, Amsterdam having the second place. Minor ports are Harlingen, in Friesland, and Flushing, the packet station for England, situated on the island of Walcheren in Zeeland. The tonnage entering and clearing at Dutch ports in 1920 was about 8 million each way, of which Dutch vessels accounted for one-third, while in 1927 it was 32 millions. Regular air-services connect Amsterdam with London, Paris, Hamburg and Basel.

General Information.—The standard coin is the 10-florin piece, containing 6·048 grammes of fine gold, but the unit of currency is the florin or guilder of 100 cents, equivalent normally to 1s. 8d., i.e. 12 fl. = £1. The metric system of weights and measures is in use. The Bank of the Netherlands (a private bank) alone has the privilege, under certain restrictions, of issuing notes, and the money in general circulation is chiefly silver. The leading London Banks act as agents for the Amsterdam Bank and the Rotterdam Banking Company, which are the most important Dutch concerns. The Dutch language is spoken. The standard of education is high, and less than 1 per cent. of the population is illiterate. Letters reach Holland in 1 day, and by air in a few hours. There is a British Consul-General at Rotterdam and at Amsterdam, besides Consuls at Dordrecht, Flushing, The Hague, Harlingen, Ymuiden and elsewhere, and a British Commercial Secretary at the Hague.

HONDURAS

Area and Population.—The Republic of Honduras has an area of 44,300 square miles ($1\frac{1}{2}$ times the area of Scotland) and a population of $\frac{1}{2}$ million. The people are mainly Indians, with an admixture of Spanish blood, and some negro admixture on the coast nearest the West Indies. The total trade is worth about £5½ millions, or over £7 a head, and the imports are in excess of the exports. Only paper money is in

Honduras.

circulation. The chief town, Tegucigalpa, has about 30,000 inhabitants. Education is nominally compulsory, but a majority of the population are illiterate.¹

General Physical Conditions.—Honduras is in Central America, and lies between latitude 13° N. and latitude 16° N. It has a long northern seaboard overlooking the Caribbean Sea, and a short seaboard, the Gulf of Fonseca, opening to the Pacific Ocean, between the Republics of Salvador and Nicaragua. Except along the seabords, and in the north-east, the whole country is elevated, and the tropical heat is consequently modified, giving a pleasant, healthy climate. On the plateau summits there are natural pastures of the savannah type, while on the higher mountain slopes, temperate forests replace the tropical vegetation of the coast plain. The rainfall is everywhere abundant, especially on the north coast.

Human and Economic Conditions.—The bulk of the population live on the uplands, and **maize** is the staple food crop raised. Secondary products for local use are beans and wheat, while on the lowlands rice and **sugar** are important. **Tobacco** is grown widely, and a proportion is exported to other parts of Latin America, some being of fine quality. The chief economic product is however **bananas**, which are grown along the North Coast for the United Fruit Company of the United States (17 million bunches in 1927). In the same region there are also **coco-nut** groves of growing importance. Some *coffee* of fine quality is grown on the middle slopes of the mountains, but the export is small. There is a **cattle-rearing** industry on the upland pastures, and milk, meat and cheese are produced, while hides are exported. A little mahogany is obtained from the lowland forests, but on the whole the resources of the country are undeveloped, chiefly for lack of capital and means of transport. Attention is being directed to sisal and castor-oil, as likely to be worth extensive cultivation.

Trade Relations.—The total length of railway is 900 miles, mainly owned and operated by the fruit companies, and transport, except on the coast, is largely by pack mule and ox-cart. Roads between the principal towns on the highlands and the seaports on either coast are complete, and increasing use is being made of motor-vehicles. Trade is principally with the United States, American boats carrying the bananas, coco-nuts and minor products from Pto. Cortez, Tela, Ceiba, and Trujillo on the north coast. A certain amount of food-stuffs go to British Honduras, and trade with other Latin Republics is largely through Amapala, on an island in the Gulf of Fonseca. The trade with the United Kingdom is insignificant. A free port is to be established on the north-east coast. Harbour facilities are at present poor.

General Information.—The unit of currency is the silver dollar or *peso*, but only small coins are in circulation, American paper money and Honduras bank-notes being the medium of exchange. The principal banking establishment is the Banco de Honduras, with London agents.

The metric system of weights and measures is legally established, but Spanish units are generally current, the more commonly used being the *libra* (1.014 lb. av.), the *arroba* (25 libras), and the *quintal* (100 libras). Mails reach Honduras, via U.S.A., in 18–20 days. There are British Consuls at Tegucigalpa, Puerto Cortez and Trujillo.

¹ For Map see Guatemala, p. 239.

HONG-KONG

Area and Population.—The Crown Colony of Hong-Kong consists of an island, 32 square miles in area, ceded to Great Britain by China, in addition to the peninsula of Kowloon on the mainland, and a leased territory of neighbouring agricultural land, making a total area of 391 square miles. The total population is nearly a million, all but 16,500 (Europeans and Indians) being Chinese. The death-rate is greatly in excess of the birth-rate, the population being maintained by Chinese immigration. The average excess of immigrants over emigrants is 20,000 annually. The total trade, averaging £200 millions, is largely of an entrepôt character, Hong-Kong being a free port. A well-staffed University supplies a higher English education chiefly to Chinese students.

Position, Climate and General Physical Conditions.

—Hong-Kong stands at the mouth of the Canton River, on the coast of Southern China, and ninety miles from Canton. A strait half a mile wide separates the island from the mainland. It lies one degree within the tropics, and in the track of the monsoon winds, so that the climate is very hot and humid in summer, but warm and on the whole dry in winter.

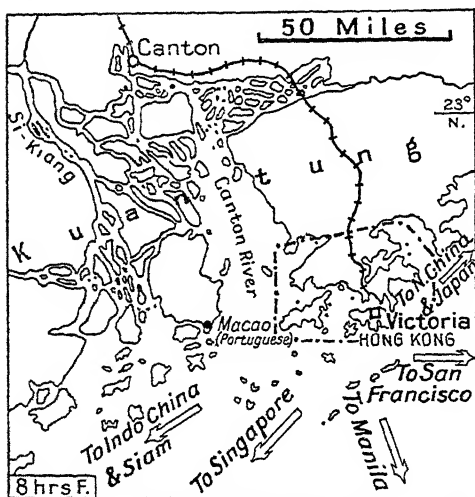


FIG. 51. HONG-KONG.

Human and Economic Conditions.—The Chinese villages around Hong-Kong grow the staple crops of Southern China—rice, sugar, cotton, indigo, beans, fruits, oil-seeds—many persons also engaging in fishing. The urban population is partly engaged in manufacture, there being

large cotton-spinning mills, sugar refineries, rice and flour mills, rope mills, cement works, tin-smelting works, breweries, cigarette factories and shipbuilding and repairing yards. The bulk of the raw material for these industries is imported, and the finished products exported. The neighbouring Chinese mainland supplies sugar, cotton and hemp; rice comes from French Indo-China, as does tin, although it is actually mined in Yunnan; India and Japan send cotton yarn; the United Kingdom sends woollen yarn; the Philippines send hemp, sugar and timber; the United States, kerosene and tobacco. It appears that there are large coal resources in the neighbouring Chinese province of Kwantung: concessions are to be obtained and capital invested, with a view to providing Hong-Kong with cheap coal.

Of perhaps greater importance than the manufactures is the large entrepôt trade, the Hong-Kong merchant houses handling a large proportion

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of the trade of Southern China, especially in silk and tea, to which has lately been added vegetable oils. Foreign goods sent into China via Hong-Kong average £45 millions, as against imports of Chinese goods largely for re-export valued at £40 millions. Only a small proportion, roughly £5 millions out of the total £45 millions, are goods of British origin, principally cotton piece goods, with small consignments of iron and steel goods and machinery. Japan sends in a larger share (nearly £6 millions), including cotton piece goods, matches, earthenware, small metal goods, paper, stationery, etc. The United States also sends more goods through Hong-Kong than does Great Britain, petroleum taking the first place, and the consignments of smaller value includes iron and steel goods and canned goods, especially condensed milk. The return trade to the States is smaller than the outward trade, and includes silk yarn, silks and wood oil. British purchases of Chinese silk are largely made from Shanghai and Tsingtao, the chief item coming through Hong-Kong being raw hides, with tin as a subsidiary article. Chinese return trade to Japan, too, is largely through the more northerly ports. Large quantities of rice from Siam and Indo-China are shipped to Hong-Kong.

By virtue of its position on the north shore of the South China Sea, its fine harbour, and the fact that it is a free port, Hong-Kong handles a part of the general trade of the countries round that Sea, notably the Philippines, British and Dutch East Indies, Siam, and French Indo-China. This trade is largely in such commodities as rice, sugar, tea, oil, tobacco, drugs, and cotton piece goods, besides miscellaneous manufactures. The total from these sources is about £25 millions.

The fact that Hong-Kong is an important military and naval station, as well as a principal port of call for mail steamers and tourist traffic, leads to a considerable demand for luxury articles of European as well as of Eastern origin.

General Information.—The currency of Hong-Kong consists of notes issued by three banks (the Hong-Kong and Shanghai Banking Corporation, Chartered Bank of India, Australia and China, and Mercantile Bank of India), besides British, Hong-Kong and Mexican dollars, all of nominal value 2s., and coins subsidiary to these. The weights and measures of Great Britain and of China, including the *picul* of 133½ lb., are in general use. Duties are levied on tobacco and alcoholic beverages. The National City Bank of New York (U.S.A.), the Yokohama Specie Bank, two French and two Dutch Banks, have branches at Hong-Kong. Mails arrive via Suez in one month, and via Siberia in 20–25 days.

HUNGARY

Area and Population.—The “Kingdom” of Hungary is administered by a Regent, who has practically royal prerogatives. The former Kingdom of Hungary lost territory to Czechoslovakia, to Yugoslavia, and to Rumania, and forms now neither a geographical nor an economic unit. The area is estimated at 35,800 square miles (between one-third and one-quarter the British Isles), and the population at 8½ millions, of whom over one million are in the capital city of Buda-Pest. This population is

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almost entirely Magyar, and Roman Catholic, but large numbers (probably 2 millions) of Magyars are to be found also in the lost territories. The city of Buda-Pest, formerly the metropolis of a country larger than the British Isles, which supported approximately 22 million people, has necessarily decayed in importance, especially as regards such activities as banking, education, and commerce, and the period of readjustment involved widespread ruin and distress. The second town is Szegedin, a large agricultural and market centre at the confluence of the Maros and the Theiss, while Debreczin, Pecs, and Hodmezö-Vasarhely are other large centres of rural life. The pre-war trade of Hungary was about £7 a head, and the total figure reached in 1922, £39½ millions, was far below capacity. With the stabilizing of the currency matters improved, and a figure of £70 millions, or £8 a head, was reached in 1927. Imports were, however, greatly in excess of exports, but in this respect 1929 saw a decided improvement. Educational facilities are good, but there is much poverty, and emigration is normally on a large scale.

Position and General Physical Conditions.—Hungary lies in the centre of Europe, between latitudes $45\frac{1}{2}^{\circ}$ and $48\frac{1}{2}^{\circ}$ N., Buda-Pest being in the same latitude as Basel and Nantes. The State occupies the major part of the Great Plain of the middle Danube, which is hemmed in on all sides by mountains—the Alps, Carpathians, and the ranges of the Balkan Peninsula. The Danube, the main natural line of communication, enters this plain by a gap at Bratislava, and leaves it by the Iron Gate of Orsova, but the new Hungary no longer extends to this latter limit. The greater part of the country is a level alluvial plain of great fertility, but a range of hills and mountains, running from south-west to north-east (comprising the Bakony Forest, Matra and Bükk Mountains), lies athwart the course of the Danube, which therefore has a narrow and steep-sided valley between Gran and the capital. The climate of Hungary is somewhat extreme, and the rainfall is only moderate. The combination of a hot and relatively dry summer gave the plain in its natural condition a steppe-like character (the famous *pusztas* are grass-steppes), woods being poorly developed, and under cultivation the land yields abundant crops of grain. The only forested areas are to be found on the transverse range of hills and mountains already mentioned. There are extensive marshes along the Danube and its tributary the Theiss, and both these rivers follow a general north-south course across the plain, their confluence now being in Yugoslavia.

Human and Economic Conditions.—Hungary is essentially an agricultural country, those regions in which mining and forestry were important having now been attached to other States. Of the agricultural regions, too, moreover, some of the most fertile have been lost, including the Little Hungarian Plain above Bratislava, and the Banat and Bačka in the south. The latter were particularly valuable, since their southerly position gave them a longer and hotter summer than elsewhere on the Plain. The two chief crops are **wheat** and **maize**, the latter being more important in the south and east, the former in the north and west: of both there is, under normal harvest conditions, a large exportable surplus, which finds a market in the mining regions of neighbouring States, and in the industrial centres of Western Europe. The secondary grain crops are **rye** and **barley** mainly for local use, while the principal root crops are **sugar-**

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beets and **potatoes**. The latter are largely used in the manufacture of *starch* and *alcohol*, while the former yields from 150,000 to 200,000 tons of sugar, of which a considerable proportion is available for export. **Tobacco** (a Government monopoly) and **vines** are extensively grown, the former for local use, and the latter both for local use and for export in the form of *wine*, although only the Tokay vintage is well known outside Central Europe. The rearing of *horses*, *cattle* and *sheep* was the traditional occupation of the Magyars on the *pusztas*, and although much of this natural pasture has been put under the plough, the loss is more than made up by the abundance of the hay, root and cereal crops which are fed to stock, although from this point of view the loss of the large maize harvest of the South is serious. Maize, barley and potatoes are also fed to *pigs*, which are important, and large numbers of poultry are kept on the farms. Hence live and dead *meat*, *lard*, *bacon*, *eggs*, *feathers*, *hides* and *wool* are among the secondary exports of the Plain. For many years there was a deficiency of seeds, manures, and agricultural implements, while the flocks and herds have been depleted, so that ample credit facilities must be forthcoming before the country can play to the full its important rôle as a food-producer in the economy of Central Europe. In 1927 the export of wheat and wheat flour was valued at £6½ millions, that of live-stock at £3¼ millions.

Very little mineral wealth remains to Hungary, but the Pecs **coal**-basin, with an output of 6½ million tons is said to have huge reserves, and there is also some lignite mined near Buda-Pest. Nearly 90 per cent. of the *forests* have passed into other hands.

Hungary has never been a manufacturing country, the main industries being those usually found in agricultural centres, namely, *flour-milling*, brewing, distilling, tanning, soap-making, sugar-refining, tobacco manufacture and so forth. Such industries as exist apart from these have been fostered by the Government, and are carried on largely at Buda-Pest: they include iron and steel and engineering works, manufacture of agricultural implements, leather and electrical goods, jute sacks and bags, cotton and linen textiles.

Trade Relations.—Hungary lies far from the sea, and as has been suggested, her main trade consists in the exchange of food-stuffs for the metals and manufactures produced by the States lying to the west and south of her borders, and also for the colonial produce brought to the great entrepôts of Western Europe. Czechoslovakia, Austria and Germany take the largest share in the trade. That of Great Britain is inconsiderable. The Hungarian peasants are very poor, and agricultural implements and tools, together with cheap textiles and articles of domestic use, comprise their main requirements. Mineral oil and timber come from Rumania.

General Information.—The unit of currency is the *pengő*, of which 27·32 pengős = £1 sterling. The metric system of weights and measures is in general use. The numerous Banking establishments include the Hungarian Commercial Bank of Pest, for which the leading London banks are agents, and the British and Hungarian Bank.

Mails take 2 days to reach Buda-Pest, where there is a British Consul, and a British Commercial Secretary.

ICELAND

Area and Population.—The Kingdom of Iceland is ruled by the reigning monarch of Denmark. It has an area of nearly 40,000 square miles, and a population of about 100,000, of whom 15,000 live in the chief town and seaport of Reykjavik. Apart from Reykjavik, the only centres of population are large and small villages, while over half the inhabitants live in lonely scattered farms, usually on the margin of a fiord, or on the banks of a river. There are very few foreigners in Iceland, the people being descended from the ancient Vikings, and speaking the Icelandic tongue, which is akin to Norwegian. The numbers are increasing, although there is a small steady emigration to Canada. The Icelandic people are well educated, and there is universal suffrage. The total trade in 1928 was about £7 millions, or £70 *per capita*—a high figure due to the fact that the local range of products is so limited, and three times that of the pre-war period. Exports form 57 per cent. of the total.

Position, Climate and General Conditions.—Iceland lies in the North Atlantic Ocean, between Norway and Greenland, and just south of the Arctic Circle. Except in the east, the whole country feels the benefit of the warm westerly winds and ocean drift which characterize the North Atlantic. Hence the rainfall is plentiful, while on the coasts the summers are cool, and the winters not extreme, the fiords remaining free from ice as in Norway. The whole of the interior is, however, elevated, and hence is never warm, so that it is unproductive, and in part covered with snowfields and great glaciers. The population is confined to the margins and to the lower parts of the river valleys, and for the most part the people are occupied in agriculture and fishing. The Iceland fisheries are valuable, and the fishing-grounds are visited by foreign, including British, fleets. **Cod** are the most important fish obtained, the herring catch being relatively small. The total value of the fisheries is estimated at over £1½ million sterling. The only crops are *potatoes* for local use, *turnips* and *hay*, which are fed to stock. There are relatively few horses and horned cattle, but over 580,000 **sheep**, which are the main source of livelihood to the farmers. Factories have been established at various points on the coast for the manufacture of fish-meal and fish-manure.

The leading exports are *fish* (dried, salted or packed in ice) and *fish products* (e.g. oil, meal, roe), which go chiefly to Great Britain, and in smaller quantities to Scandinavia, and to Spain and Italy, the latter being great markets for stock fish. The *wool*, *tallow*, *hides* and *salted meat* from the sheep make up practically the remainder of the outgoing trade, and are sent chiefly to Denmark, Scandinavia and Great Britain. About 3,000 of the sturdy little Iceland ponies are also exported annually.

On the list of imports, timber and wooden goods (including barrels) stand first, since the country is treeless, these coming from Scandinavia and Denmark. Cereals rank second, coming from one or other of the continental entrepôts, or direct from the United States. Coal and textiles, largely supplied by Great Britain, are next in importance, besides salt (for fish curing), colonial wares, yarn and rope (for the shipping) and a great variety of manufactured goods. Salt also comes from Spain. The greatest aggregate of imports is from Denmark, a considerable proportion

India.

being Danish manufactures or re-exports from Copenhagen. Great Britain stands second as a country of origin, and the two together account for some 60 per cent. of the import trade, but this is 10 per cent. below the figure of ten years ago.

The unit of currency in Iceland is the *krona* (Danish krone) worth 1s. 1½d., or about 18 *kronur* (Danish kroner) to the pound sterling at a normal exchange. The metric system of weights and measures is in universal use. The chief banking establishments are the Islands Bank and Landsbanki Islands, with London agents. Mails arrive in 5-8 days.

There is a British Consul at Reykjavik, and there are Vice-Consuls at several fishing villages.

INDIA

Area and Population.—India comprises all that part of the Indian peninsula which is directly or indirectly under British rule or protection, i.e. both British Provinces and Native States, besides two British Provinces lying outside the peninsula, namely, Baluchistan to the west and Burma to the east. The British Provinces have an area of nearly 1·1 million square miles (equal to that of Argentina), while the Native States have an area of 0·7 million square miles, bringing up the total for all India to 1·8 million square miles, i.e. it is about half the size of Canada.

Of the population (census 1921), 247 millions were resident in the British Provinces, and 72 millions in the Native States, the former including the more densely peopled and productive regions. If the rate of increase during the previous decade had been maintained, some 21 million persons would have been added to the 1911 total, giving a total of 336 millions, but the 1921 census showed 319 millions only. The bulk of these people are an illiterate peasantry, engaged in farming the land by traditional methods of a most primitive character. The surplus production of their small holdings

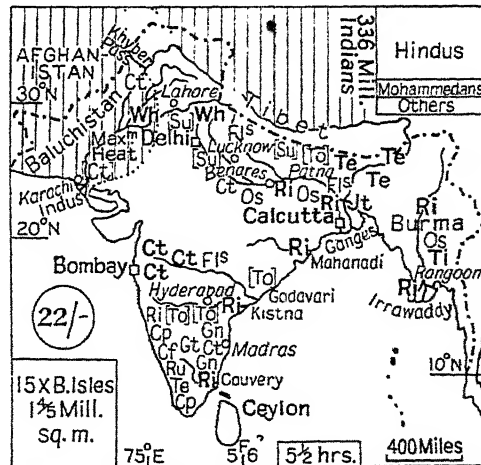


FIG. 52.—INDIA: CROPS.

is not great, so that the external trade of India amounted in 1917-18 to only £272 millions, or about 16s. a head. This had risen by 1929 to £400, or 22s. a head. The exports exceeded the imports by £38 millions in the latter year. Part of the excess goes to pay interest on the very large amount of British capital which is invested in India.

Although forming but 17 per cent. of the total population, 54 million persons in India are registered as engaged in trade or industry. Hence

there are many large cities, no fewer than thirty having a population of over 100,000. The two largest of these, Calcutta ($1\frac{1}{2}$ millions) and Bombay (over 1 million) are the principal centres where trade and industry are conducted on Western lines, and the same is true to a less degree of Madras (with half a million people). Hyderabad (half a million) is, however, merely the capital of a Native State, and in Rangoon, Lucknow, Delhi (the Empire capital) and Lahore also, each with over a quarter of a million inhabitants, the aggregation owes relatively little to British organization. The population in these large towns makes up only $3\frac{1}{2}$ per cent. of the total, i.e. viewed as a whole the type of settlement is rural.

The number of Indians able to speak English is $2\frac{1}{2}$ millions, and in 1927 over 2 millions (chiefly males) were receiving secondary or higher education on British lines. Less than 8 per cent. of the population can read or write.

Position and Climate.—India stretches from about 36° N. latitude to 8° N. latitude, i.e. a great part of it lies outside the tropics. Moreover, this northern extra-tropical area has, except for the Indus delta, no seaboard, and hence it is subject to the greatest contrasts between the "cold" and hot seasons. Northern India, too, presents the greatest rainfall contrasts—the north-east being the wettest part of the whole country, while the north-west is the driest. The very dry area comprises the middle and lower Indus basin, and it is here that the heat is most trying and extreme, since there is neither cloud nor rain to cool the air.

Southern India has much less variation of temperature through the year, the lowest mean monthly average being higher than that in the hottest part of England in summer, while the highest mean is ten degrees (Fahrenheit) cooler than in the Indus valley. It is in Northern India that a migration of Europeans to hill stations during the hot season is most necessary.

The whole life of India depends on the regular recurrence of the monsoon—the rain-bearing south-west wind which advances from the Indian Ocean during the summer months, and extends gradually over the country, beginning in the extreme south, spreading north-eastwards, and reaching the north-west last of all. The monsoon may be late in arriving, or it may be weak, and a whole or partial failure of the harvest in certain (but not all) regions is the result. Famines are not, however, so disastrous as in former years, since the railways allow food to be brought quickly to the stricken areas, while Government provides relief works and seed for the coming year and artificial irrigation is increasingly practised.

The main current of the south-west monsoon strikes the west coast of peninsular India, and this region (which includes Bombay Presidency) has unfailing and very heavy rains. As they continue across the Dekkan the winds get much drier, so that the rains are light, and a drought is not unusual. The part of the monsoon current crossing the Bay of Bengal brings abundant rain to Burma and Assam, where no failure is ever experienced, and then gradually sweeping round, blows as a south-easterly wind up the Ganges Valley, where consequently there is a rainfall diminishing in quantity and certainty from east to west. Here, therefore, there may be whole or partial failure. There is always a downpour on the southern slopes of the Himalayas, giving rise to rivers with a perennial flow. The middle and lower Indus basin is passed by the south-west current to the south, and by the south-east current to the north, so that apart from irregular summer showers it is rainless: here occurs the Thar or Indian Desert.

India.

Although summer rains are the rule throughout India, there are certain regions that have also some rainfall in winter. The south-west monsoon, retreating in autumn, recurves over the Bay of Bengal until it is blowing from the north-east, and so gives a winter rainfall to the Carnatic Coast southwards from Madras. Northern India is at the same time visited by atmospheric depressions coming from the west, which lead to rain on the mountain slopes and on the northern margins of the Punjab, United Provinces and Assam. Over the greater part of India, however, the north-east or dry monsoon gradually establishes itself during the winter months. Heavy night dews and local thunder showers alone mitigate the drought.

At the change of the monsoon, the atmosphere is unstable and severe storms occur, taking the form of tropical cyclones, which sweep over the Bay of Bengal, and raise tidal waves which often cause widespread destruction on the surrounding low coastal plains.

May and early June, when the sun is powerful and the skies cloudless, form the "hot season" in India, to be followed by the "wet season," and this in turn by the "cold" season, lasting from November to April. During the latter season the nights are chilly, but according to European standards the days are still far from cool.

General Physical Conditions.—India proper has three well-marked divisions: the high mountains, the plains and the peninsular tableland. The Himalayas form an unbroken rampart two to five miles high in the north; the Hindu Kush and Sulaiman Ranges shut off Afghanistan and Baluchistan to the west; the Mountains of Assam and the Arakan Mountains isolate Burma to the east.

Enclosed on three sides by these mountains, the Indo-Gangetic plain has been built up of the rock-waste that their rivers bring down, and consequently is floored with a deep alluvial soil of great fertility. It is divided into two distinct regions: (a) the Indus Basin, opening to the Arabian Gulf, which suffers from deficient rainfall and excessive heat; (b) the Ganges Basin, opening to the Bay of Bengal, which has as a rule abundant rains. The Thar Desert and Aravalli Hills divide the two regions, but between the northern spurs of these hills and the foot-hills of the Himalayas is a wide gap which offers the natural line of advance from the one region to the other. This gap or gate is commanded by Delhi.

Tropical India consists of a great tableland, the Dekkan, built of very ancient rocks, and hence is a mineral-producing region. The tableland is tilted gently eastwards and presents a steep face, the Western Ghats, to the Arabian Sea, while it has a more broken edge overlooking the Bay of Bengal. The main rivers naturally flow eastwards, and have built great fertile deltas along the coast. They include the Mahanadi, Kistna, Godavari and Cauvery. The Narmada and Tapi are exceptional, since they escape through deep gorges cut in the Western Ghats, and enter the Gulf of Cambay.

Poor, thin soils cover a great part of the Dekkan, but there are rich accumulations in the valleys. Moreover, a huge volcanic outburst in a long-past era spread a covering of *trap* over the north-west of the tableland, and this has weathered into a black, sticky soil which holds moisture well, and if neither too deep nor too shallow is highly productive (the black cotton soil).

Outside India proper are Baluchistan and Burma. The former is part of the plateau of Iran, and consists of high, arid, mountain-girt basins,

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drained by rivers whose waters evaporate or lose themselves in sand and swamp instead of reaching the sea. Burma lies beyond the eastern mountain chains, the essential feature of the country being the wide and fertile Irrawaddy Valley, stretching from north to south between parallel ranges, and terminating in a vast delta.

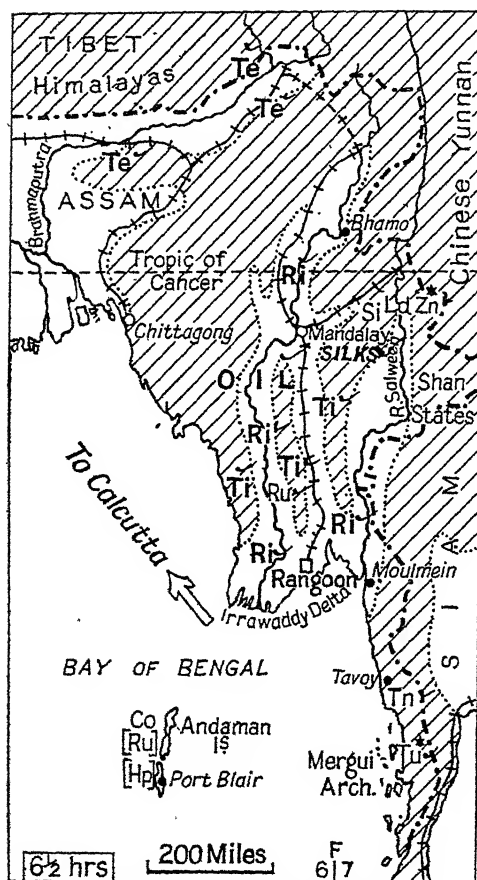


FIG. 53.—BURMA AND ASSAM.

The configuration and boundaries of India have served to isolate the country. The northern plains reach the sea in two places only, the Indus and Ganges deltas. The former is sandy and arid, the latter so wet that it is overgrown by almost impenetrable swamp jungle—the Sunderbunds. Neither do the points where the Indus and the Brahmaputra (tributary to the Ganges) enter the country afford gateways for human traffic. These rivers descend from the Tibetan plateau to the plains by way of inaccessible gorges cut deeply into the Himalayas. The only relatively easy land entry to India is from the north-west, by the Khyber Pass in the valley of the Kabul River; hence the concentration of troops and the multiplication of railways in this part of India.

Vast forests clothe the slopes of the Himalayas, and the mountains of Assam and Burma. The trees include teak, deodar, sal, sandalwood, and many others of economic value. The Western Ghats and the loftier parts

of the Dekkan—notably in Central India and the Nilgiri Hills—are also forested. The total heavily-timbered area is over a quarter million square miles, of which 100,000 square miles are classed as “Reserved Forests,” i.e. they are under the State Forest Department, and are permanently maintained for the supply of timber. They yield an annual revenue of about £1½ millions.

On the cultivated plains little of the original vegetation remains, the villages being surrounded by groves of banyans, figs, palms, mango and banana trees. At the foot of the Himalayas is the Terai, a dense jungle of tall grasses, bamboos and bush, and there is much grass jungle and

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light scrub on the Dekkan, although the mountains and deep gorges are wooded. In the dry north-west, hard-leaved evergreen trees and shrubs and thorn bushes are the dominating features, growing often in sandy and stony wastes, which are dotted with oases where irrigation has transformed the soil.

Human and Economic Conditions.—The people of India represent a medley of races, languages and religions, ranging as regards civilization from the primitive savage hunter to the cultured and educated Parsi. The Hindi language is spoken by 82 millions, Bengali by 48 millions, Telugu by 24 millions, Marathi by 20 millions, Tamil by 18 millions, Punjabi by 16 millions, while in addition there are seventeen other languages each spoken by more than a million people, besides many others spoken by smaller groups. English is the mother-tongue of 300,000 people.

As regards religion, two-thirds of the people are Hindus, and nearly 67 millions are Mohammedans, who form the majority in the Punjab and the North-West Frontier Province (for the religion came with invaders from Central Asia), and who also slightly outnumber the Hindus in Bengal. There are also over 10 million Buddhists in Burma (where the people are of Mongolian race), and nearly 4 million native Christians, the majority in Southern India. Pagan races aggregate over 10 millions. Racial, religious and caste differences introduce divisions between individuals, so that their organization as workers is difficult, and collective bargaining as between employers and employed hardly exists. The result is that the standard of wages and the hours and conditions of labour are not satisfactory, and disputes are difficult to settle.

About 72 per cent. of the total population are supported by *agriculture*. All the land is cultivated in small holdings, but rather more than half is rented from zamindari—large proprietors—or from the village community, while rather less than half is owned by the peasants themselves (ryots), who pay the land tax directly to the State. Of the two systems ryotwari is universal in Burma and Sind, and predominates in Assam, Madras and Bombay, while zamindari and village communities are the rule in the Ganges Valley, Punjab and Central Provinces.

Small holdings are usually associated with intensive cultivation and high yield, which outweighs the drawback that expensive hand labour must be substituted for machinery. In India, however, the lack of manure, the extreme poverty and conservatism of the peasants, and the frequently insufficient water supply lead to indifferent cropping. Better implements are gradually being introduced by Government, and the establishment of co-operative credit societies and agricultural banks should eventually overcome the difficulty of obtaining suitable seed and manures, but progress is slow. The lack of farm-yard manure is due to the fact that cattle-dung is used as fuel, and not to the absence of cattle, which are very numerous.

Although the climate allows crops to be sown and reaped all through the year, double and treble cropping, such as is found in China and Japan, is practised on only one-seventh of the cultivated land of India—mainly on irrigated fields. The two agricultural seasons are the *rabi* (winter) and *kharij* (monsoon), fields being cultivated in the opposite season in alternate years and left fallow in the interval. Rotation is practised, the main classes of crops being grains, pulses, and oil-seeds. Wheat, gram, sesamum and rape are among the *rabi* crops; rice, millet, cotton, sugar and many pulses are

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kharif. *Irrigation* is rendered necessary by the length of the dry season, and by the low rainfall in many parts of the country. On the Indo-Gangetic Plain (Punjab, Sind, United Provinces), and on the coast-plain of Madras, canals are employed. These are constructed by the State, a canal rate being levied on the matured crop, so that in event of harvest failure the Government shares the loss. In the plateau region of Central and Southern India, artificial lakes (tanks) are constructed by damming the rivers, while native wells, increased in numbers by Government assistance, are universal. The area irrigated in 1926-27 was 48 million acres, i.e. the equivalent of the whole extent of arable land and permanent pasture in the United Kingdom. Of this 46 per cent. was irrigated by canals, 15 per cent. by tanks, 25 per cent. by wells, and the remainder by other means, e.g. *shadufs*. The net revenue from the State works (54 per cent. of the total) was £5 millions, and the value of the crops raised from this land was £61½ millions. The Sarda Canal Scheme (U.P.) will irrigate 1½ million acres, and other schemes are maturing, e.g. at Sukkur. Drainage works are also constructed and under construction to relieve the water-logged soils of the irrigated areas.

Rice is the crop covering the largest acreage, being grown principally on the flood plains and deltas of the Ganges and Irrawaddy, on the deltas of the Mahanadi, Kistna and Cauvery, the irrigated fields of Sind (lower Indus), and the coast plain of Bombay. The export, valued at £25 millions in 1927-28, is chiefly from Burmah, followed by Bengal and Madras.

Millets cover the second largest acreage, serving as food for the poorer people and fodder for cattle, but they do not enter into the external commerce of the country.

Wheat stands third as regards acreage, being grown as a rabi crop especially in the Punjab and the United Provinces (latitudes 28°-32° N.), where the winter rains, together with water conserved in the soil from the previous monsoon, afford sufficient moisture for the crops on half the area, the remainder being irrigated by the efficient canal system. It is also grown on the irrigated areas and on the water-conserving soil of the north-west Dekkan. The yield of wheat is 7-10 million tons, but the exportable surplus varies: formerly valued at £13 millions, it has now fallen to £4-5 millions.

Ranking fourth as regards acreage, but first in importance as regards commercial importance, is **cotton**, which is grown principally on the black soil of the Dekkan, in Bombay, and Central Provinces and Hyderabad. The yield (5-6 million bales of 400 lb.) is between one-third and a quarter of that of America, and much greater than that of Egypt. The Indian cotton is of short staple, and hence is relatively little used by the Lancashire spinners, but longer stapled varieties can be grown in the irrigated areas of the Punjab and Madras, from which 2 million bales are already obtained. The region of greatest promise, however, is Sind, the province watered by the Lower Indus, which most closely resembles Egypt. The construction of the barrage at Sukkur, in the north of the province, to be completed in 1930, will bring 6 million acres under perennial irrigation, and it is estimated that this area can produce 2 million tons of grain and cotton.

The various **oil-seeds**—rape, sesamum, and linseed—together occupy an acreage nearly equal to that of cotton, and supply an important product

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both for domestic consumption and for export. With these must be classed *ground-nuts*, also yielding oil, which have of late years been much more generally cultivated. Linseed, which is the most exacting as regards soil and moisture conditions, shows a slightly decreasing acreage.

Nearly 3 million acres in India are under **sugar-cane**, but the yield (averaging 1 ton to the acre) is only sufficient for local needs. The chief productive area is in the United Provinces at the foot of the Himalayas, and in the neighbouring portions of the Punjab, Bihar and Orissa. This area is outside the tropics, and has a very long dry season, so that the indigenous cane is quite unlike the tropical canes from which the refined sugar of commerce is obtained. The cultivation in tropical India, where canes suitable for the factory could be grown, is relatively unimportant. Abundant irrigation, heavy manuring, and much weeding are necessary for a heavy growth of cane, and as each of these presents a difficulty in India, any improvement in the industry is likely to be of slow growth.

Jute, like cotton, has a commercial importance that is hardly indicated by the acreage occupied by the crop. India holds almost a monopoly in this fibre, and its cultivation is limited to the deep moist soils found in Bengal in the neighbourhood of the Ganges delta. The yield varies from 10 million to 12 million bales, since both yield and acreage are fluctuating.

Tea is another crop which is grown very locally, over half of the acreage being on the mountain slopes in Assam, and a quarter on the slopes of the Himalayas round Darjeeling. These regions have some precipitation in winter in addition to a long and heavy summer rainfall, a necessary condition for this evergreen shrub. A little tea is also grown on the Nilgiri Hills. During the decade 1908-18 the area of production increased 27 per cent., but owing to improved methods the yield increased no less than 56 per cent., the 1918 crop being 372 million lb., of which 90 per cent. was sent abroad. By 1928 the output was over 390 million lbs. Over three-quarters of a million people are employed on the plantations, the output averaging 500 lb. a head. Both the yield per acre and the output per person employed are greater than in Ceylon.

War conditions gave a fresh stimulus to the cultivation of **indigo**, but as the synthetic product came once more on the market, the output dropped again into insignificance.

Since bullocks are used almost universally as draught animals, alike for the plough, at the well, and in country carts, the number of **cattle** is large. Buffaloes are used for similar purposes in the wet rice-fields, and buffalo cows are kept very generally for their rich milk. The total number of bovine animals is over 150 millions—five times as many as in Argentina. In the dry north-west (Punjab and Sind) camels are used. Since the Hindu religion forbids the use of beef for food, and the prohibition is widely observed by non-Hindus also, *goats* are reared in very large numbers (about 40 millions) both for their flesh and milk. The consequence is that India has an enormous although highly variable surplus of *hides* and *skins* for export.

Mining is relatively unimportant in India, considering the size and population of the country, the total output being well under £25 millions. The **coal**-field most extensively worked is that on the north-eastern margin of the Dekkan plateau, stretching through Bengal and Chota Nagpur. The field of Singareni in eastern Hyderabad is second in importance. The

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output has reached 22 million tons, and more than supplies the needs of the railways and factories, domestic consumption being very small.

Formerly next in value, but now only third, is the **gold** (£1½ millions) produced from the quartz reef of Kolar, in the native State of Mysore. Electrical power for the workings is derived from the falls of the river Cauvery. India is also one of the chief sources of the world's supply of **manganese** (for hardening steel), which is mined in the Central Provinces and various other parts of the Dekkan to the value of nearly £3 millions. The competition of Brazil, which now supplies the United States, is being felt. The **petroleum** output of Burma (in the Irrawaddy Valley) renders the whole country largely independent of foreign supplies of kerosene. Assam also has some oil-wells. The Burma yield averages

8-million barrels, that of Assam ½ million. There are refineries at Rangoon, fed by pipe-lines. About 25 million gallons of motor spirit are exported, while about one-third of the kerosene consumed is imported from the United States and the Dutch Indies.

In the south of Burma, behind Tavoy, there are important deposits of *tungsten* ore (wolfram), of which the development has begun, although the 1921 price slump checked operations. There is also *tin* both in the Tavoy and Mergui-districts from which the output is valued at £½ million. *Iron* is found in conjunction with the Chota Nagpur coal and is worked for local use. In the recently opened *silver-lead-zinc* mines of the Upper Shan States (Burma), large

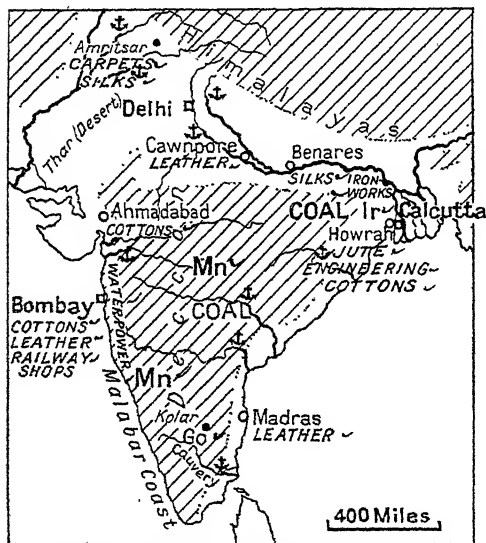


FIG. 54.—INDIA: MINERALS AND MANUFACTURES.

reserves of ore have been proved, and the output is already of importance (over £2½ millions). A neighbouring colliery is being worked to supply cheap power. *Mica* is exported from mines in Chota Nagpur which are the most important in the world, while Travancore in South India is the world's chief source of *monazite sand* (for *thorium*).

The large supplies of local raw material, the abundant cheap labour in the towns, and the ample facilities for marketing the products from Bombay and Calcutta have led to the growth of *manufactures* principally at these two centres. Bombay, the focus of several railways crossing the black cotton soil, is the natural centre for the *cotton* industry, while Calcutta, close to the *jute* fields, manufactures the latter fibre. Electrical power, derived from the water tumbling over the steep Western Ghats, drives the spindles and looms of Bombay, while coal from the Bengal field is easily carried to Calcutta. Both industries were originally carried on with British capital, under British

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direction, and with British foremen, but several Indian firms, using Indian capital, are now manufacturing cotton by Western methods. There are 278 cotton factories, averaging 1,200 operatives apiece; $8\frac{1}{2}$ million spindles (Japan has 5 million) and 158 thousand looms. Ahmedabad in Gujarat ranks second to Bombay as a cotton centre. Over one-third of the raw cotton produced in India is consumed in these mills.

In the 85 jute mills there are over $\frac{1}{2}$ million hands, and the output is worth 5,300 lakhs of rupees (over £35 millions). India is thus a main world source of bags, sacks and hessians. Apart from these machine industries, there are 11 million *hand-loom* weavers, the muslins and damasks of Northern India, the calicoes and chintzes of Southern India, and the silks of Gujarat, Benares, Amritsar and Mandalay still being in demand. The Government makes every effort to foster this industry, by introducing improved looms, organizing exhibitions, and otherwise placing it on a proper basis. Amritsar is also a centre for the native *carpet*-weaving industry.

There is a large modern *leather* industry at Cawnpore, harness, saddlery and boots for the army being manufactured. There are also large tanneries and leather factories at Bombay and Madras, besides great numbers of small native enterprises. The stimulus given to leather working by the War has led to a permanent increase in the home consumption of Indian hides.

The *iron* and *steel* industry is expanding, although still relatively small, there being only two large firms, both utilizing the coal and iron of the Bihar-Bengal field. The most important plant is that of Messrs. Tata (a Parsi family), situated at Jamshedpur on the Chota Nagpur coal-field, which turns out pig-iron, steel rails and steel plates. In 1928 the output of pig-iron was 1 million tons, of steel 600,000 tons. There are also numbers of engineering shops at Calcutta and Howrah, and large railway shops at Bombay.

Industries that should be capable of profitable development are *match*-making, *paper*-making (with grasses as raw material), and the crushing of *oil-seeds*. The latter are mainly exported as such, and consequently valuable cattle-foods and fertilizers are lost to India, and there is undue pressure on freight.

The War left the country in possession of a very much enhanced capital, and there is a marked tendency for the traditional hoarding of gains to give place to investment, so that new enterprises can be financed locally, and there is every prospect of rapid progress. The fact that much money is tied up in industry, however, made India's reaction to the world slump very severe, although the period of depression is now past.

Trade Relations.—The railway system of India is isolated, and the territories marching with her are only thinly peopled, so that only one-sixteenth of the external trade is by land. The two great entrepôts on which the railways converge are Calcutta and Bombay, and of these the former handles one-third, the latter over a quarter, of the total trade. Bombay has the advantage of a fine natural harbour sheltered from the south-west monsoon, but immediately behind it is the steep wall of the Ghats, and the relatively thinly peopled Dekkan. Calcutta is approached by the river Hoogly, which only at spring tides can be navigated by vessels drawing over 30 ft. It is, however, the gateway to the teeming population of the Gangetic plain.

India.

Karachi, handling the wheat and other products of the Punjab and Sind, has the third largest trade—chiefly export. It has a good natural harbour, lying a little to the west of the delta, but is hampered by the lack of grain elevators. Rangoon, another river port, is the outlet for Burma, handling two bulky exports, rice and teak, besides oil. Madras has the fifth place only, offering no good harbourage, and of the lesser ports, Tuticorin in the extreme south-east of the peninsula, and Chittagong, the outlet of Assam, may be mentioned. Both have good railway facilities.

The fact that the Burmese railways are isolated from those of India proper is a grave defect which demands immediate attention. The link-line will probably run into North Burma from north-east Assam, and eventually the Burmese system will also be joined by a Chinese line. India and Ceylon are connected by combined rail and steam ferry, and a causeway across Adam's Bridge is projected.

In spite of various defects noted above, India has better facilities for internal and external communication than any other country in Asia. The railways yield a profit to the State of several millions annually, and employ 762,000 persons, chiefly Indians. The Great Indian Peninsula Railway is electrified as far as Poona.

The largest classes of imports are cotton piece-goods, machinery, sugar, iron and steel; the largest classes of exports are raw cotton, grain and pulse, jute goods, oil seeds and tea.

Analysis showed that at the close of the War the imports into India from the United Kingdom had declined from 63 per cent. to 46 per cent. of the total; Japan had leapt into the second place with 20 per cent. instead of 2 per cent., while the United States had taken the third place with 10 per cent. as against a previous 3 per cent. Japan had captured a very large part of the British market in cotton piece goods (India's largest import), where Britain was formerly supreme, while the United States had taken the pre-war trade of Germany and Belgium in iron and steel goods, besides part of that of Britain in the same commodities. Japan also supplied matches and silk goods in large quantities, and sent small consignments of glass, earthen and enamel ware, beer, apparel, stationery and so forth. Java sent 7 per cent. of the total imports, since it was the chief external source of supply of sugar, the remainder coming from Mauritius. The latest figures show that the share of Great Britain, 48 per cent., is a little better, but definitely below the pre-war level, while of course the actual bulk of goods sent is very much less. The United States share keeps steady at 10 per cent., and includes stapled cotton, petroleum and motor cars; Japan retains only 7 per cent. of the trade, chiefly cotton textiles, while Germany, supplying dyes, machinery, and artificial silk, has 6½ per cent.; Belgium, supplying heavy iron and steel goods, has 3 per cent., and Italy supplying textiles, and especially artificial silk, has 2½ per cent. With the return to a lower price level for sugar, the share of Java is only 2 per cent.

As regards exports, the United Kingdom improved her position slightly in 1918-19, taking 28 per cent. of the whole, as compared to a pre-war 25 per cent. The United States advanced from 7 per cent. to 13 per cent., taking much of the hides and leather that went formerly to Germany and Austria, besides oil-seeds and some rice and tea. On the other hand, the opening up of the large Brazilian manganese deposits allowed the United States to cease purchasing these ores from India. Japan bettered her

Ionian Islands.

position in 1918-19 from 7 per cent. to 12 per cent., chiefly by an additional import of raw cotton, of which she absorbed the proportions previously going to Germany and Austria, besides diverting part of the supply usually going to France and Italy.

The latest figures show Great Britain taking 24 per cent. (much as before the War), while the share of the United States is half as great. Germany and Japan compete for the third place (7 per cent.), while Ceylon, France, Italy and Belgium form a group of secondary importance. Over two-thirds of the Indian cotton sent abroad now goes to Japan. Great Britain was never a great purchaser of this commodity, but takes the bulk of the Indian tea (nearly 85 per cent., partly for re-export), and a third of the raw jute (for the Dundee mills). The manufactured jute is much more widely distributed, being in demand in all countries where large quantities of grain, cotton, sugar, etc., must be sacked or baled—e.g. in Australia, Canada, United States, Egypt and Latin America. Cotton piece goods of Indian manufacture find a market in the East, in Ceylon, Mesopotamia, Persia, Malay, East Africa and Siam.

General Information.—The Banks of Bengal, Madras and Bombay (recently amalgamated as the Imperial Bank of India) act as bankers for the Indian Government, and purchase and re-discount internal bills of exchange. The leading banks for foreign exchange are the Chartered Bank of India, China and Australia, the Mercantile Bank of India, the Imperial Bank of India, and the National Bank of India, all with London offices. There are numbers of small native banks and many thousands of rural co-operative credit societies. The money unit is the rupee, formerly with the legally fixed value of 1s. 4d. (Rs. 15 = £1) but latterly with a fluctuating exchange value which has been stabilized at 1s. 6d. A uniform system of weights and measures is under consideration. The mails from London reach India (Bombay) in 15 days, or by air in 10 days. Calcutta mails arrive in 17 days or by air in 11 days. There are Imperial Trade Commissioners at Calcutta and Bombay, and a Trade Commissioner for British India in London.

INDIA, FRENCH

See **French India**, p. 190.

INDIA PORTUGUESE

See **Portuguese India**, p. 369. •

INDO-CHINA, FRENCH

See **French Indo-China**, p. 190.

IONIAN ISLANDS

See **Greece**, p. 234.

IRAQ

Area and Population.—The Arab Kingdom of Iraq, formerly Mesopotamia, includes the three Provinces of Mosul, Baghdad and Basra (formerly under Turkish rule), and has an area of 143,000 square miles, with a population, according to the census of 1920, of nearly 3 millions. Baghdad, the largest city, has about 225,000 inhabitants, Mosul and Basra each about 80,000. The bulk of the peasants are Arabs, but the townspeople are of very mixed origin, including Turks, Jews, Greeks, Syrians and Armenians. The total trade for 1927-8 was £12 millions, or rather over £4 per head;

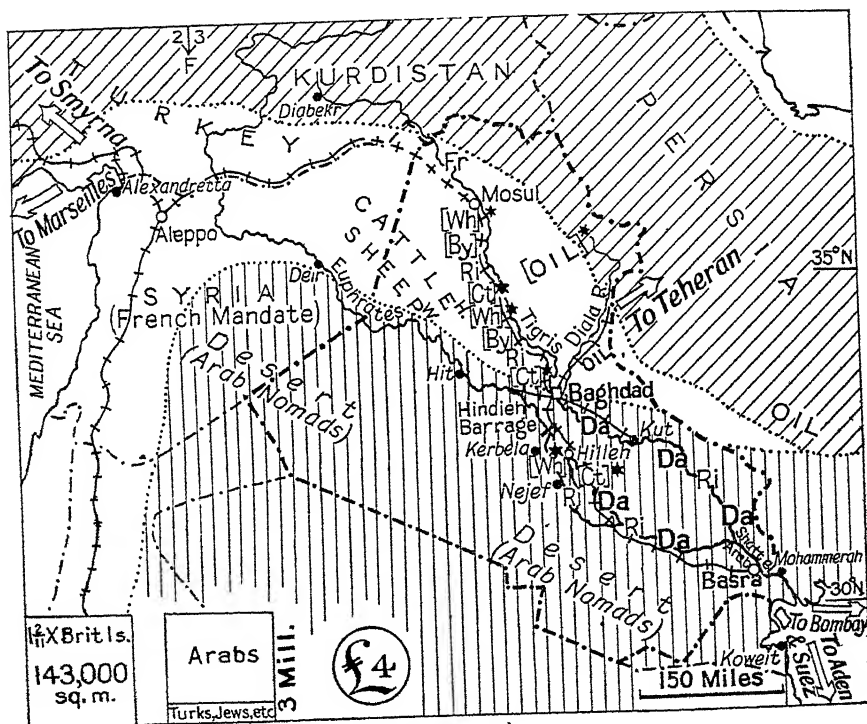


FIG. 55.—IRAQ.

to this must be added a transit trade of £8 millions, for Baghdad is an important Eastern entrepôt for Persian, Arabian, Syrian and Turkish trade.

Position and Climate.—Mesopotamia extends from latitude 37° N. (approximately) to latitude 30° N., i.e. through the same range of latitude as the Punjab, and like that territory is bounded by mountains and deserts, and depends for its productiveness upon a single river system. To the north lie the mountains of Armenia and Kurdistan, in which the Euphrates and Tigris rise; west and south-west lie the Syrian and Arabian deserts; to the east lies the steep margin of the Persian upland. The only seaboard is the north-western shore of the almost land-locked Persian Gulf.

Iraq.

The chief characteristic of the climate is the intense summer heat and the entire absence of summer rainfall, so that dust is a very unpleasant feature. The winter days are warm, though it is cold at night, and in the winter season some fifteen inches of rain fall, this being the rainy season in the Mediterranean region, on the fringe of which Mesopotamia lies.

General Physical Conditions.—The main feature of Iraq is the twin streams of the Euphrates and Tigris, which follow a general direction from north-west to south-east. Their head streams are close together, but as they leave the mountains they diverge, the Euphrates approaching the borders of Syria. Between them they enclose a belt of rolling country which becomes less elevated and more monotonously level towards the south. In the neighbourhood of Baghdad the rivers once more approach to within twenty miles of each other, and then once more diverge, flowing over a level alluvial plain, and often breaking into a complex network of channels. At some distance above Basra they unite completely, and form the Shat-el-Arab, a tidal waterway, very much encumbered by shallows and shifting sandbanks and by the bar at Fao.

Above Baghdad, Mesopotamia includes a belt of hilly and mountain country to the east of the Tigris, watered by a series of tributaries of that river. Below the city, the Persian boundary crosses the plain, and part of the left bank of the Shat-el-Arab is Persian.

After the winter rains, the northern part of Mesopotamia is a rich grass steppe, and on the hills there is a light woodland of evergreen oak, box, juniper, wild olive and scrub, with meadows along the stream banks. In the hotter and drier south, thorny shrubs and coarse herbs predominate, and in the hot summer the whole country wears a desolate, almost desert, aspect, except along the watercourses.

Human and Economic Conditions.—Many of the Arabs are pastoral nomads, keeping camels, horses, cattle and sheep, which they pasture on the plains during the spring and early summer, moving with them to the permanently watered valleys or the mountain pastures when the forage is exhausted. There is much wastage among the flocks and herds late in the dry season, but if alfalfa were introduced as a fodder crop, and the supply of maize increased, the **stock-raising** industry could be placed on a firm basis.

The agricultural population is mainly settled in towns and villages along the banks of the Tigris and Lower Euphrates, and there are villages also in the hill country where water is available. In the north, where there is most winter rain, the agriculture resembles that of the Mediterranean lands. Wheat, barley, peas and beans are cultivated, and there are orchards of peaches, apricots and figs, besides vineyards, mulberry plantations and orange groves. Dried and preserved *fruits* are an article of trade.

Below Mosul, where the Tigris leaves the rolling country for the plains, irrigation becomes necessary. **Wheat, barley** and beans are grown as winter crops, and for these the rain is sufficient. There is a small surplus for export. In spring, when the snow melts in Armenia, the river floods its banks, and **rice**, peas, and maize are sown, which are harvested in autumn. Oranges are also grown. Still farther south, the annual deposits of silt has so raised the river's bed and banks that it flows above the general level of the country, bordered by natural levees, at the foot of which are swamps.

Here draught oxen and buffaloes are pastured. Water is lifted by shadufs or drawn up by camels on to the fields by the river. The lowest land is used for rice, that somewhat higher for maize and millet, and the highest land, which is only watered in full flood, is sown with wheat and barley. Below Baghdad on the Tigris and Hilleh on the Euphrates, the region of **date** groves begins. These increase in importance until along the Shat-el-Arab they extend unbroken for 100 miles, in a strip from a half to two miles wide. Here they are irrigated, not by shadufs, but by the action of the tide, which dams back the river water twice daily, and allows it to flow into the network of canals among the groves. This region produces 80 per cent. of the world's commercial supply of dates, only one-third of the crop being consumed locally. The export is worth well over £1 million. A little cotton is grown, and investigation has shown that there is good **cotton** land in abundance round Mosul, southwards to Baghdad and around Hilleh. A more scientific method of irrigation, such as was initiated by the completion in 1913 of the Hindieh Barrage on the Euphrates, would bring vast areas under cultivation, and the region could, like the Punjab and Egypt, make important contributions to the world supply of grain and cotton. Minor products would be dates, pulses, gums, licorice, wool and hides.

In the Punjab, however, which is a quarter the size of Iraq, there are $4\frac{1}{2}$ million people, and in Egypt nearly 13 millions, while here there are under 3 millions, so that the labour problem is the fundamental difficulty. The Arab, given security from over-taxation and oppression, is a good worker, and the great increase of crops that took place under the supervision of the Army of Occupation indicates that even with the present population, given good government, transport facilities, and irrigation works, a large foreign trade could be built up under European direction.

Mesopotamia has no mineral wealth, save for an **oil**-field between the Middle Tigris and the Persian frontier which may prove exceptionally rich. At present there is a small output from the Khanaqin district.

Trade Relations.—The country offers a market for cotton piece goods (the largest import), sugar, coffee, tobacco, metal goods, machinery and agricultural implements, besides minor domestic wares such as soap, matches, glass and earthenware. For all of these there will be an increased demand as the standard of living rises with the development of the country.

Although with the completion of the Baghdad railway, Smyrna in Asia Minor and Alexandretta in Syria will become ports for Mesopotamia, the gateway for cheap sea-borne traffic will continue to be at Basra, which stands 70 miles from the sea on the Shat-el-Arab. Ocean-going steamers can reach this port, where there is now first-class accommodation and wharfage, or they can continue another 20 miles up-stream before transshipping the cargo to river steamers, which proceed to Baghdad. Both the Euphrates and Tigris are difficult rivers, needing to be entrained and embanked, so that they may scour out their channels. At present the narrows and shallows restrict navigation to native coracles and rafts except on the sections mentioned.

Baghdad is finely placed as an inland entrepôt, on which caravan routes from Persia, Mosul, Aleppo, Damascus and the Nejd converge. The railway reaches Baghdad from Basra via Hilleh, and a branch goes up the Diyala

Irish Free State (Saorstát Éireann).

valley to the Persian frontier. The main route continues north past Samarra to Baiji, and thence will be constructed to Mosul, from which point it will turn westward to link with the already completed section from Smyrna, via Konia to Nisibin. Trade with Iraq is largely via Aden or Bombay, and Indian goods form a large proportion of the imports.

The most recent figures show that 31 per cent. of the imports originated from Great Britain and 24 per cent. from India, 10 per cent. from Persia, 7 per cent. from the Dutch Indies, and 5 per cent. from Syria and Turkey. The classes of goods were cottons, sugar, tea, silks, timber and grain. Of the exports (dates, grain, wool, hides and skins), 24 per cent. went to Great Britain, 21 per cent. to the United States, 19 per cent. to India, and 15 per cent. to Persia.

General Information.—The Ottoman Bank, the Eastern Bank, and the Imperial Bank of Persia (each with a London office) have branches at Baghdad, Basra and elsewhere.

The present rupee currency will be replaced by the *dinar* at the rate of 2 dinars = £1. A weekly air-mail reaches Baghdad via Cairo in 6 days; ordinary mails take 23 days. There is a British Consul at Basra.

IRELAND, NORTHERN

.See **Great Britain**, p. 217.

IRISH FREE STATE (SAORSTÁT ÉIREANN)

Area and Population.—The Irish Free State, constituted in 1922, has an area of 26,000 miles, covering about four-fifths of Ireland, and has a population of 3 millions. The capital, and largest city, Dublin, has about 400,000 inhabitants, while the second and third cities, Cork and Limerick, have under 100,000 and under 50,000 respectively. The population, unlike that of Great Britain, is predominately rural. The mass of the people are Roman Catholics. The total trade in 1927 was over £105 millions, or £35 a head, a figure which should substantially increase.

Position and Physical Conditions.—The Irish Free State lies opposite to Wales on the one hand, and to America on the other. The western part of the country is wild, rugged and unproductive, while the richer plains and valleys lie in the east and south, opening towards Great Britain. The principal river, the Shannon, is exceptional, in that it enters the Atlantic Ocean by a large westward-opening estuary. After winding sluggishly across the level central plain, and expanding into a series of lakes, it tumbles rapidly through the gorge of Killaloe, not far above Limerick, and here has been harnessed for the ambitious Shannon Power Scheme. The cooler summers, milder winters and heavier rainfall of Ireland differentiate its climate from that of the English Plain, and form the basis of its agricultural development.

Human and Economic Conditions.—The Irish Free State is essentially a pasture land, 60 per cent. of the cultivated land, or over 2 million acres, being under *hay*, while there is another 2 million acres of rough grazing on the mountains. *Potatoes* are planted on 10 per cent. of the arable land, and *oats* on 17 per cent., while other crops of some importance are turnips, mangels and barley, all alike contributing to the stock-raising industries as feeding-stuffs.

Cattle are of greatest importance, numbering 4 millions, while there are 3 million *sheep*, and over 1 million *pigs*. *Horse* breeding is important, and there are nearly $\frac{1}{2}$ million horses.

The cattle are reared in the first instance for meat, and shipments of live cattle for slaughtering in Great Britain account for more than one-fourth the total exports. *Dairying* is receiving ever-increasing attention, and creamery *butter* is made on a large scale, especially in the fertile vales behind Limerick and Cork, and in Tipperary.

Pigs are shipped as live meat, *bacon* and *fresh pork*, the value of this trade being about 15 per cent. of the total exports. Sheep and lambs are exported on a smaller scale. In conjunction with dairying poultry-breeding is carried on, the trade in *eggs* and birds nearly equally that in butter. Other animal products exported are *wool*, hides and skins and feathers.

The *fisheries* are of some importance, notably the river *salmon*, and the total catch of fresh and salt-water fish is valued at over £1 million.

Manufacturing is naturally unimportant in a country where there are practically no minerals and where farming holds the first place. An exception must be made of *brewing*, chiefly centred at Dublin, the export of beer and stout being second in value only to that of live cattle as a single item. Apart from brewing there are some small linen and woollen manufactures, motor-engineering works, biscuit factories and so on. A surplus of brewing barley is exported.

The trade of the Irish Free State, as regards exports, is almost entirely (95 per cent.) with Great Britain and Northern Ireland, while as regards imports about 66 per cent. is from Great Britain and 10 per cent. from Northern Ireland, or over three-fourths in all. Large imports of wheat and wheat flour, maize and maize meal, are necessary and these account for the direct trade with the United States and Argentina, but a very considerable proportion of these and other foreign commodities are transhipped from Great Britain.

The Free State is a very important market for the whole range of British manufactures, although it is not the leading market for any particular class of goods: it is also a steady market for coal. The Shannon Power Scheme has already been mentioned, and it is expected that hydro-electric power from this centre will stimulate Irish manufactures. The power centre is unfortunately remote from the two most active urban communities, those of Dublin and Cork, so that the expenses of distribution are at present considerable. It is near to Limerick which at present is chiefly interested in the dairying, bacon-curing and allied industries.

General Information.—Money, weights and measures are as in Great Britain. The National Bank and the Provincial Bank of Ireland have head offices in London.

The Free State is a member of the League of Nations.

ITALIAN LIBYA (TRIPOLITANIA AND CYRENAICA)

Area and Population.—Libya is made up of two separate colonies, Tripolitania and Cyrenaica, each administered by a Governor. The total area is about 580,000 square miles, and the population is estimated at $\frac{3}{4}$ million, of whom rather more than half a million are in the settled coastal belt. Negroes, Arabs, Berbers and Jews make up the population, which also includes about 6,000 Maltese and Italians. Tripoli, the capital and chief port of Tripolitania, has 60,000 inhabitants. Benghazi, the capital and chief port of Cyrenaica, has 30,000. The foreign trade averages over £4 millions, but the imports have ten times the value of the exports, since they are mainly for the upkeep of Italian troops and officials, or for development work.

Position and General Physical Conditions.—Libya lies along the Mediterranean coast, between Tunis and Egypt, extending from about 33° N. to an indefinite distance into the unmapped Sahara Desert, and marching with Egyptian territory in the Libyan Desert. The coastal plain of varying width has light, uncertain winter rains, and a very hot dry summer. Inland there is a plateau region, which is loftiest in the peninsula of Cyrenaica. The latter region is the best watered area, but owing to the limestone soil there is little surface water. The olive, cypress and other Mediterranean trees, besides palms, are typical of the coast belt, and of the valleys cut into the highlands. On the elevated land behind the Tripoli coast there is much esparto grass, while the plateau of Cyrenaica is covered with rich natural pasture. The interior is of a desert character, with a few important oases.

Human and Economic Conditions.—Agriculture is carried on in the coast belt, the chief crops being *olives* and *barley*, which are only exceptionally in excess of local needs, and must often be supplemented by imports. **Esparto grass** is brought down on camel back from the interior of Tripoli and is exported, chiefly to Great Britain. Owing to the low rainfall, a large proportion of the inhabitants are pastoral nomads, rearing **cattle**, sheep, goats and camels, which yield *wool* and hides for export. An important stock-raising industry could be developed on the Cyrenaica highlands. Caravans cross the desert between the coast region and the Sudan, halting at the oases, such as Ghadames, Ghat and Murzuk, where *dates* are grown, besides grain and fruit for local use. These caravans carry on a local traffic with the Central Sudan, but they also bring back **ostrich feathers**, which are exported. Of considerable importance is the **sponge** fishery, which in a good year may be worth £80,000. There are also *tunny* fisheries, and there is an export of tunny, pickled or packed in oil. *Bananas* are grown at Derna.

The Italians are spending large sums on the development of the country, and several short lengths of railway have been built from Tripoli and from Benghazi.

Trade Relations.—The bulk of the trade is with Italy. Cotton textiles are among the leading imports for native consumption, those of Great Britain competing with those of Italy, and to a less extent with those

Italy.

of France. Of imported food-stuffs, coffee, sugar and rice are the most important, and in addition matches (from Belgium or Italy), petroleum and coal are in demand. Feathers go largely to France, and esparto grass to the United Kingdom.

General Information.—Arabic is generally spoken, and has with Italian the status of an official language. The *lira* is the unit of currency, and the leading Italian banks operate in the country. The local measure of weight is the *oke*, equivalent to $2\frac{3}{4}$ lb. *The two capital cities have direct cable connection with the United Kingdom via Malta. Mails arrive via Italy in 6–9 days. There are British Consuls at Benghazi and Tripoli and a Vice-Consul at Homs.

ITALIAN SOMALILAND

Area and Population.—Italian Somaliland includes Protectorates over two native Sultanates in the north, and a Colony in the south. The total area is nearly 140,000 square miles, and the population about 650,000, i.e. it is a sparsely peopled country. The Sultanates are administered by Commissioners, and the Colony by a Governor resident at Mogadisho, the largest town, with 14,000 inhabitants. The total trade is insignificant, little more than £ $\frac{3}{4}$ million.

Position and General Conditions.—Italian Somaliland forms the east coast of the Horn of Africa, stretching from the Gulf of Aden to the navigable Juba River, which by recent treaty with Great Britain is now wholly Italian, together with the port of Kismayu. Stretching from half a degree south of the Equator to 12° N. latitude, the territory has a very hot climate, and as the alternating monsoon winds blow parallel to the coast, the rainfall is slight. Hence the vegetation is scanty, consisting of drought-resisting shrubs and herbs, and the main occupation of the Somalis is the rearing of *cattle*, *camels*, *sheep* and *goats*, the life being nomadic. Since the Italian occupation agriculture has developed to some extent, and **maize**, **millet**, and a little **cotton** are grown with the help of irrigation from the intermittent rivers. The trade is in the hands of Arab and Indian merchants, and goes via Aden or Zanzibar, in Arab dhows. Mogadisho (Magadoxo), the chief port, is a mere roadstead.

General Information.—The unit of currency is the rupee, and the only bank is the Banco d'Italia. There is wireless connection between different parts of the country, and via Massawah (Eritrea) with Italy.

ITALY

Area and Population.—The Kingdom of Italy (including the large islands of Sicily and Sardinia) has an area of 119,700 square miles and a population of 40 millions, i.e. it is slightly smaller than the British Isles, and has 9 million fewer inhabitants. The Trentino, essentially the Alpine valley of the upper Adige, with the Adriatic peninsula of Istria including Trieste, were obtained from Austria by the Peace Treaty, their

Italy.

population being predominantly Italian. Italy also has possession of certain Aegean Islands off the coast of Asia Minor, of which Rhodes and Cos are the chief. The foreign trade in 1928 and 1929 averaged £395 millions, or nearly £10 *per capita*, the value of the imports being over $1\frac{1}{2}$ times that of the exports. In 1913 the trade was only £6 10s. a head, and imports represented 55 per cent. of the total. The surplus of imports is partly accounted for by the money spent in the country by tourists; by the earnings sent or brought home by Italians who in large numbers go abroad to work for longer or shorter periods; and by the interest on Italian capital invested abroad.

The capital of Italy, Rome, has 877,000 inhabitants, but it is surpassed in size by Naples, which is an industrial centre and a seaport, besides housing large numbers of rural workers, and totals a population of nearly a million. Milan, on the Lombardy plain, has 940,000 people, and Turin, in Piedmont, has 570,000, both being commercial and industrial centres. Palermo, in Sicily, has 400,000, and Genoa, the premier seaport, 600,000. Florence, Catania, Bologna, Venice, Messina, Leghorn, Bari, Padua and Ferrara all have over 100,000, but, as in the case of Palermo and Naples, many of these city dwellers are peasants who go out to their fields and orchards in the countryside, especially in the south, where small holdings are the rule. The inhabitants of these large cities form $14\frac{1}{2}$ per cent. of the total, the figure also found for Japan.

The birth-rate of Italy is high, and the annual surplus of births is normally nearly half a million. Consequently there is great poverty, and large numbers of Italians (about 200,000 annually) emigrate, either temporarily or permanently, going especially to the United States, Argentina and Brazil, and also to other European countries. At present large numbers of Italians are working in French mines, while at the request of the Government of Haiti a party was sent out to introduce intensive rice culture into that country. The percentage of illiterates, though declining, is still high, being as great as 70 per cent. in the poor southern province of Calabria, although it is not more than 10 per cent. in the north, e.g. in Piedmont, where social and industrial conditions generally are more advanced. Italy has twenty-five Universities, nearly all of very old foundation, averaging 1,500 students at each. There are also large numbers of institutions giving technical instruction.

Position, Climate and General Physical Conditions.

—Italy is a peninsula aligned from north-west to south-east, and occupying a central position in the Mediterranean Sea, which, together with Sicily, it divides into a western and an eastern basin. Only about 100 miles separate Sicily from the African coast, and near the gateway thus created between the west and the east lies the British possession of Malta. Immediately to the east, Italy faces the Adriatic Sea, and the Balkan Peninsula on its opposite shore. Since the southern outlet of this sea, the Strait of Otranto, is only thirty miles wide, Italy is keenly interested in the political and economic conditions of the Balkan States.

Italy falls naturally into three divisions: the Alps, the Lombardy Plain and the Peninsula proper. The Alps fall very steeply to the Plain in the west and north, and the tributaries of the Po form important routeways to the chief passes—the Dora Riparia to Mont Cenis, the Dora Baltea to the St. Bernard (a carriage road only), the Toce to the Simplon, the Ticino

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to the St. Gotthard, and the Adige (which, however, flows parallel to the Po without joining it) to the Brenner. The southward opening valleys have a warm and sunny climate contrasting sharply with that of the Swiss Alps; and the beautiful lakes which partly fill them—Maggiore, Como, and Garda—are a favourite resort. The level Lombardy Plain is thickly floored with an alluvial soil derived from the mountains, and is exceedingly fertile. The summers are very hot and the winters somewhat cold, while the rainfall is moderate in the west and diminishes towards the east. Irrigation canals are, therefore, common. At the Adriatic extremity the Po has built a large delta, and the land is fringed with swamps, lagoons and islets, including those on which Venice stands. Reclamation of water-logged lands goes steadily forward. In the west the hilly Piedmont region is interposed between the Alps and the level Plain. The main routes and towns of North Italy lie, it will be noticed, away from the river once it leaves Piedmont, since they are built on the firmer ground at the edge of the flood-plain.

The features of the Peninsula proper are determined by the Apennines. These mountains rise steeply from the shores of the Gulf of Genoa, and traverse the length of the country, sweeping southwards through Calabria, and then westwards through Sicily. The cultivable lowlands form a series of isolated valleys and small plains, such as the Arno valley in Tuscany, the plain of Naples in the west, and the plains of Apulia in the east. The climate of these lowlands, and of the lower hill slopes, which are also under cultivation, is distinguished by a dry and very hot summer, and a mild, rainy winter—pre-eminently the climate for tree and fruit culture.

The Alps, with their snow and glacier-fed streams, and the Northern Apennines with a fairly heavy and steady rainfall, are important sources of water-power. Farther south the rivers dwindle in volume during summer and autumn and are of little use. The south-eastern margin of the Tyrrhenian Sea, from Naples to Palermo, is a region of volcanic activity (Vesuvius, Etna), and is also subject to disastrous earthquakes, which within recent years have caused the loss of tens of thousands of lives (e.g. at Messina). Italy marches with France, Switzerland, Austria, and Yugoslavia.

Human and Economic Conditions.—Italy is essentially an agricultural country, although not without important industries, and generally speaking farming methods are primitive in character, although least so in the north, where the farmers are better educated, and where the climate and soil conditions allow of double cropping. Manures are used far less than in France and Belgium, so that altogether the country is producing below capacity, a fact towards which Government attention is now directed.

The two crops that lead throughout Italy (except on the mountains) are **wheat** and the **vine**, each occupying over 10 million acres, or together one-third of the cultivated land. For both of these plants the dry, hot summer following a wet spring is admirably suited. In the case of wheat, the finest variety, durum wheat, much sought after for the manufacture of macaroni and other pastes, comes from Apulia, in the lee of the southern Apennines, where the rainfall is very low. The yield of wheat in a good year is 6 million tons—not far short of that of France, and similarly the wine production of 800 million gallons is two-thirds of the output of the premier wine country. The best known Italian wines are the Chianti of Tuscany,

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the Asti of Piedmont, the Lachrymae Christi of Naples, and the Marsala of Sicily. The export varies greatly according to the abundance of the vintage, and according to the condition of the market, but wines are usually within the first half-dozen exported commodities as regards value. The secondary cereal crop is *maize*, which does especially well on the Lombardy Plain, which has some summer rain; polenta, prepared from maize meal, is a staple food of the peasantry. In the same region, and for the same reason, *hay* and *fodder* crops do well, while *rice* is grown under irrigation, the yield averaging half a million tons. In peninsular Italy, and in the southward facing Alpine valleys, the **olive** takes on very great importance, both for local consumption, the oil being a substitute for butter and other fats, and as a money crop, although the sale is mainly for consumption in other parts of the country, or for packing fish, etc. Lucca oil is, however, greatly sought after abroad. A crop of very local distribution is **hemp**, the main fields being in Emilia, i.e. in Northern Italy, with Bologna as the principal market, but the Naples hemp is also of very fine quality. This commodity is an important article of export, and the more so now that the Russian hemp no longer dominates the market. About 70 per cent. of the output is sent abroad. The mulberry finds suitable conditions practically throughout the country, and **silk** is the staple of Italian trade, although the competition of the Far East is keenly felt. The greatest production is in the north—Piedmont, Lombardy and Venetia—and Milan is the most important silk-conditioning centre in Europe, handling also the imported cocoons from Turkey, the Levant and the Orient. Turin is a secondary market. The **sugar-beet** does well on the Plain, and some 300,000 tons of sugar are produced, which does not, however, quite fill the local demand.

A little *cotton* is grown in Sicily, and it is claimed that the output could be increased to 50,000 bales, but the summer drought renders the crop precarious unless irrigated. Of great importance throughout the lowlands and hillsides of peninsular Italy are the orchards, **figs** and other dried fruits being an important article of food, while **almonds** (especially from Sicily and Sardinia) and **pistachio nuts** are valuable exports. Even more so are the **oranges** and **lemons** of the south, and especially of Sicily, which is the main source of supply of lemons to the whole of Europe. The same sunny regions grow **tomatoes**, which from being an everyday article of local diet have developed into an important trade commodity, the export of tinned tomatoes and tomato purée being worth well over £1 million, and finding a very wide market. *Fresh fruit* (e.g. table grapes) and *vegetables* (e.g. early potatoes) are normally sent by express across the Brenner Pass into Austria and Germany, which are also a market for the *flowers* grown in the Italian Riviera. On the western Alps and Apennines, the sweet *chestnut* grows in abundance, and affords the principal food-stuff and money crop of the peasantry, who are usually very poor.

The animal industries of Italy vary in different parts of the country. Horned **cattle** are most numerous in the north, both on the Alpine pastures and also on the Lombardy Plain, where they are stall-fed upon the abundant hay and fodder crops. Hence in these regions dairying is most important, both *butter* and *cheese* being largely produced. The Gruyère of the Alps, and the Parmesan and Gorgonzola of the Plain are well-known varieties that are exported. Milan and Reggio (Emilia) are the leading cattle markets. Cattle number 7 million, while there are nearly 12 million **sheep**, pastured

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mainly on the Apennines, and on the Sardinian and Sicilian mountains in summer, and driven down to the lowlands on the approach of winter. Certain breeds are kept for their milk, and the wool is on the whole somewhat harsh. *Goats* are most numerous in the south and in Sicily and Sardinia; they number over 3 millions. As is usual in countries where much grain is grown, poultry are very numerous, and *eggs* are an article of export, the largest output being from the northern Plain.

The fisheries of Italy are merely of local importance, and the characteristic *tunny*-fishing off the coasts of Sicily and Sardinia, and in parts of the Tyrrhenian and Adriatic Seas has declined. Much stock-fish (dried cod) is imported, since Italy is a Roman Catholic country.

The mineral wealth of Italy is not great, the absence of coal being a very great handicap. There are, however, *lignite* beds, which have necessarily been more actively worked during recent years; the most important are those of Tuscany (Valdarno) and Umbria (Spoleto) on the flanks of the Apennines, and those of south-west Sardinia (Iglesias). *Iron* ores are abundant in the Isle of Elba, which produces nearly $\frac{3}{4}$ million tons annually, and new mines have been opened up in north-west Sardinia (Nurra), and at Cogne in the Alps near the Val d'Aosta. The former are phosphatic and the latter hematite. The total is, however, insufficient for the country's needs. There are valuable *lead* and *zinc* mines in Sardinia, *mercury* in the peninsula opposite Elba (100 tons annually), and a little *manganese* near Carrara. *Bauxite* or *aluminium* ore is abundant, and works have been established at Pescara on the Adriatic coast. There are also white-metal smelters near Spezia. It is only, however, in respect of *sulphur* that Italy has a leading position, the sulphur mines of Sicily (Caltanissetta) having a world importance. The value of the output is about £1 $\frac{1}{4}$ millions, and the greater part is exported. The competition of the sulphur mines of the United States is, however, keenly felt. The *quicksilver* (mercury) mines of Idria, formerly Austrian, now lie within the boundaries of Italy. Their output is about 2,400 tons and the value nearly £1 million. Besides minerals, Italy has building and decorative stones of great value, especially the famous *marble* of Massa Carrara in Tuscany.

As has already been mentioned, Italy has an abundance of water-power, which owing to the coal shortage has lately been more widely, systematically, and economically used. It is estimated that 3 $\frac{1}{2}$ million h.p., out of a possible 8 millions, are now harnessed, and among the reforms are the creation of artificial lakes to obviate the need of adjusting the plant to the minimum flow of water (the summer drought makes this very low in the south), and the linking up of the various power stations so that current from the north (with a summer water maximum) may supplement that from the south (with a winter maximum). The electrification of the railways where traffic is heaviest has been begun, the sections across the Apennines behind Genoa and Savona, and from Bologna to Florence being complete. A power installation in Sardinia facilitates the smelting of the rich local ores.

Much of the power is used in the textile industries, among which *silk* reeling, spinning, and to a less extent silk-weaving, takes a leading place. There are over 2 million spindles in the factories and workshops, and over $\frac{1}{4}$ million workers, chiefly women and girls, are employed. The chief production is from Piedmont, Lombardy and Venetia, where raw material is most abundant, as well as power. There is, however, a secondary centre at

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Naples, which with its large population and port facilities is a growing industrial centre. The same city has a large *cotton*-manufacturing industry, although as regards cotton again the bulk of the spindles (totalling $4\frac{3}{4}$ millions) and of the looms (164,000) are to be found in the northern towns. The number of hands employed is less than in the silk industry, but the value of the output is greater. Sewing cottons and coarse or heavy materials are turned out from the Italian mills, and they find an outlet in Colonial and Eastern markets—e.g. Libya, Algeria, the Levant, and India. The raw cotton (about 1 million bales) is imported from the United States and Egypt and takes usually the second or third place on the list of imports.

The *artificial silk* industry, carried on in the northern textile areas, has rapidly become important, the output approximating to that of the similar British and German industries, and finding growing markets in the Near and Far East.

The **iron** and **steel** industry is handicapped by the lack of coal and the small supplies of iron ore, but some $\frac{1}{2}$ million tons of pig iron and 2 million tons of steel are produced. The blast furnaces are mainly on Elba and at Piombino on the mainland immediately opposite, while among large steel works are those of Genoa and Terni (Umbria). The Martin furnace is mainly used, so that there is a lack of basic slag, so valuable as a cheap fertilizer. The **electro-chemical** industries have, however, made great strides, and large quantities of cyanamide (a nitrogen product) are turned out, besides calcium carbide (for acetylene gas) at Terni, *super-phosphates* and carbonic acid at Milan. There are also chemical works at Naples, turning out *sulphuric acid* and the derivatives of citric acid (from lemons, etc.), besides cream of tartar prepared from the lees of wine. Electro-metallurgy is also engaging attention. Among Italian engineering products sent abroad, the best known are the "Fiat" *motor-cars* from Turin.

Characteristic of the country is the **glove** industry of Milan, Naples and Turin, for which local kid-skin is the raw material. The finished product competes in quality with the gloves of Grenoble, and there is a considerable export. Similarly, the *straw-plait* and *straw-hat* industries, associated with Tuscany and Leghorn, have arisen owing to the abundance of local raw material. America and Paris buy hats from Italy. At Milan there are large *rubber* works, and a speciality is insulated cable, which is sold abroad, besides motor-tyres.

In spite, however, of the considerable local importance of the manufactures enumerated, Italy's relations with the West of Europe and with the United States are based on her ability to sell raw silk, hemp, sulphur, wine and specialized food-stuffs in return for manufactured goods, and for certain raw materials which the country lacks.

Trade Relations.—Although Italy grows so much wheat, it is insufficient for the home market, since the *per capita* consumption (in the form of macaroni, spaghetti, etc., as well as bread) is very great. Supplies are drawn from the Argentine and from the United States, the latter country also supplying raw cotton and manufactured goods. This explains why the two countries named have the fifth and first places respectively on the import list. The United States also supplies most of the very large import of raw cotton, besides mineral oil. Germany, with its complete range of manufactured goods, stands second only to the United States, while France and Great Britain are in competition for the third and fourth

Ivory Coast.

places, each supplying from 10–12 per cent. of the total. Yugoslavia, Austria and Switzerland rank next, but with very much smaller volumes of trade.

Italy's exports, among which silk is so important, go naturally to countries with large silk textile industries. Germany has the leading position, for she offers also a large market for the typical Mediterranean fruits and vegetables which Italy exports, and for hemp. The United States, Great Britain and France fall into the next group, the first and last named purchasing raw silk, while the United States also affords a market for Italian food specialities. Great Britain is exceptional in buying chiefly manufactured silk, while rubber goods and motor vehicles form important classes exported to that country from Italy. Lemons, too, account for a large sum annually, besides other orchard and garden produce. Switzerland is fifth as a country buying Italian produce, taking silk, cars and fruits, while Argentina, with its large Italian immigrant population, is also an important customer for manufactured silks and foodstuffs.

The bulk of the trade of Italy passes through Genoa, which serves Lombardy and Venetia, and is also an entrepôt for Swiss trade (via the St. Gotthard and Simplon routes). Genoa has, however, a rival in Savona, situated rather more to the west, and having the most favourable position with respect to the important province of Piedmont. Naples does more local (as opposed to export) shipping business than Genoa, for it is the chief port of peninsular Italy, since Rome has at present no harbour: a commencement has been made, however, of a deep-sea harbour at Ostia, which will be an outpost for the capital city. Leghorn is the port of Tuscany, and ranks next to Naples. Catania is the leading port of Sicily, but the trade is shared by Palermo and Messina. The first-class port of Trieste, acquired from Austria, enters into competition with Venice in so far as it serves Italian territory. It is, however, the natural outlet for Austria, and an agreement has been entered into whereby that country will send at least 50 per cent. of her export through Trieste in return for a remission of charges and dues. The immediate hinterland of Trieste is not rich, yielding merely timber and some farm produce, but there has been a rapid growth of traffic from Central Europe. Italy now possesses 5 per cent. of the world's shipping tonnage as against only 3 per cent. in 1913: thus her mercantile navy ranks with those of Japan, Germany and France.

General Information.—The unit of currency in Italy is the *lira*, equivalent to the franc, and so normally of value 25·22 *lire* to the pound sterling. The three authorized banks of issue are the Banca d'Italia, the Banco di Napoli, and the Banco di Sicilia. The paper *lira* is stabilized at 92·46 to £ sterling. The Credito Italiano and Banco di Roma have London offices. The metric system of weights and measures is employed. Mails take two days to reach Italy. There are British Consuls-General at Genoa, Naples and Milan, besides Consuls or Vice-Consuls at Turin, Trieste, Brindisi, Leghorn, Florence, and elsewhere. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy.

Japan.

JAMAICA

See *British West Indies*, p. 87.

JAPAN

Area and Population.—The Empire of Japan consists of Japan Proper, a group of four islands—Honshiu (Mainland), Kiushiu, Shikoku and Hokkaido (Yezo)—together with the southern half of Sakhalin, known as Karafuto, which belongs to the same geographical group, although ranking as a colony; it includes also the island of Formosa, now called Taiwan, the Kurile Islands, called Chishima, the Luchu Islands, called Riukiu, and the Pescadores Islands, called Hokoto, besides the large mainland peninsula of Korea, called Chōsen, and a number of smaller islands.

Japan Proper covers 145,000 square miles (British Isles 121,600 square miles), and the neighbouring island groups bring the total up to 152,000 square miles. Chōsen has an area of 84,900 square miles, Taiwan 13,900 square miles, and Karafuto 13,900 square miles. The population of Japan, apart from the three last-named outlying dominions, was 64 millions in 1927, that of Chōsen $19\frac{1}{2}$ millions, Taiwan 4 millions, Karafuto 203,000, giving a total of 83 millions. The increase on this figure is nearly a million annually.

Taiwan and Chōsen are treated under separate sections, the remainder of this section referring to Japan.

The total foreign trade of Japan Proper amounted in 1928 to £360 ÷ millions, about treble the pre-war figure, and giving a *per capita* trade of £5 10s. Of this total, 45 per cent. represented exports, and 55 per cent. represented imports. The Japanese trade nearly equalled that of British India for the same year, where the *per capita* figure was only £1 2s., but on the other hand it was far less than that of Canada, which has only one-ninth of the population of Japan. In 1929 the total trade increased, and the "adverse" balance was reduced.

Like China, Japan has a large city population, a fact to be attributed to the high development of the native civilization, involving a multiplication of handicrafts and of commercial activity even before the Industrial Revolution, and also to the practice of intensive cultivation on very small holdings which makes it possible for large numbers of land-workers to live in the towns and yet be near their fields. The more favourably located of these old cities have become the centres of industrial activity on western lines, since they provided abundance of cheap labour and an immediate market for the output. Tokio, the capital city, on Mainland, has 2 million inhabitants; Osaka, now the leading manufacturing town, has over 2 millions; Kyoto, the old capital, has over half a million, as have Kobe and Yokohama, the leading seaports, and Nagoya, another great industrial centre. Besides these there are fifteen other towns with over 100,000 inhabitants, and thirty-four with between 50,000 and 100,000. The density of population, except in the high mountains and in the north, is as great as that in the industrial areas of England and Belgium. The percentage living in the large cities (over 100,000 inhabitants) is $14\frac{1}{2}$, the same figure as for Italy, and a little less than that for France.

Position and Climate.—Japan (including Karafuto) stretches

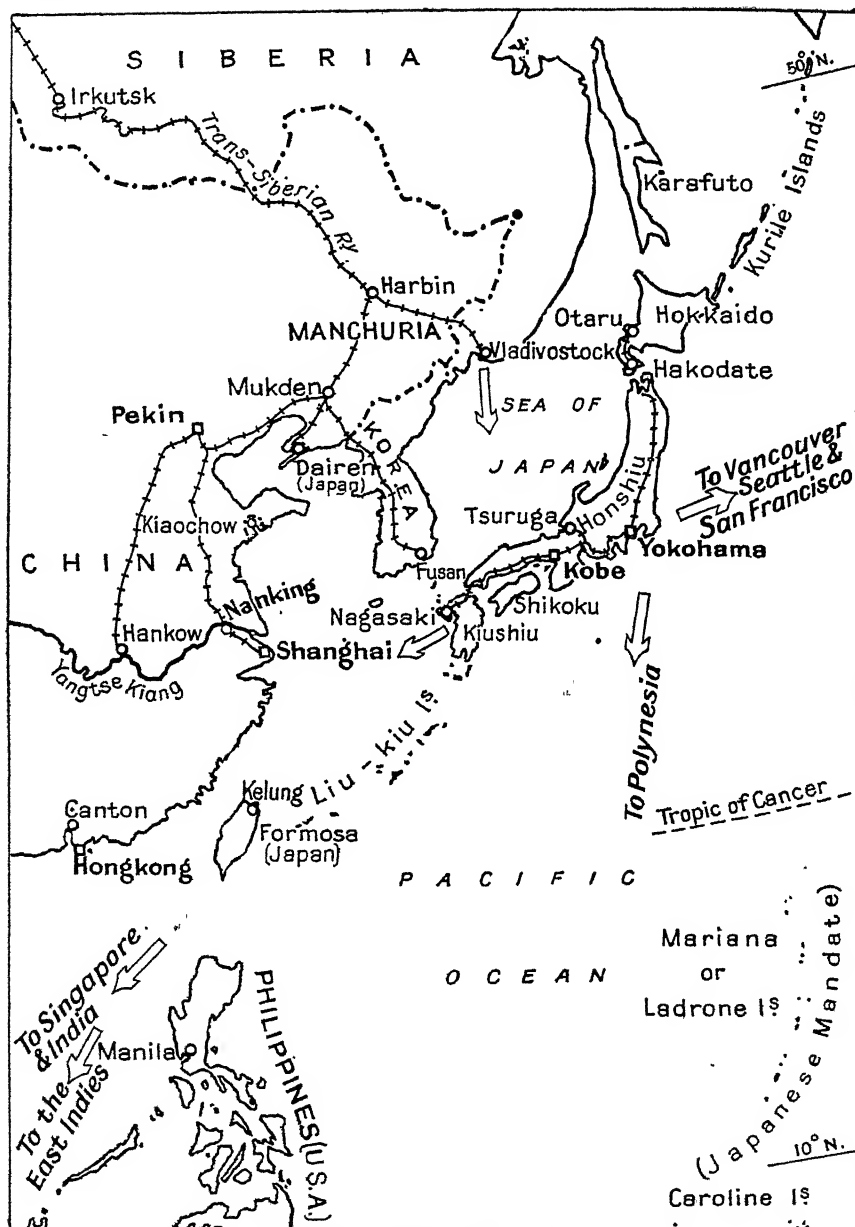


FIG. 56.—JAPANESE EMPIRE.

from 50° N. (the latitude of Land's End) to 31° N. (approximately the latitude of Shanghai and New Orleans), and lies off the east coast of Asia in a region dominated by onshore (S.E.) and offshore (N.W.) monsoon winds. Conse-

Japan.

quently the climate ranges from warm temperate in the south to cool temperate in the north, while throughout there is a plentiful summer rainfall. The winter monsoon from Siberia is cold, and brings moisture gathered from the Japan Sea. Thus the west and north have a bleak, inclement winter, but the east and south are sheltered from these winds so that the winters are short and mild, and fairly dry. It is in the regions where these pleasant winter conditions prevail, and where, besides, there is the greatest summer heat combined with heavy rainfall, that the harvests are most abundant, double cropping being possible, and it is here, therefore, that the bulk of the population is found. A great number of the large cities, including Tokio, Osaka, and Kobe, lie on or near latitude 35° N., approximately the latitude of Malta and of South Carolina (U.S.A.).

General Physical Conditions.—The Japanese Islands are mountainous throughout, so that there are neither slow navigable rivers, nor extensive plains, and the proportion of arable land to the total area is very small. Many of the mountain peaks, e.g. Fujiyama (12,000 ft.), are volcanic, and earthquakes, usually of a minor character, but occasionally very severe, are of frequent occurrence. Disasters to buildings and to growing crops may also result from the typhoons which pass northwards through the China Seas and sometimes reach Japan.

The coast is very indented, so that there is an abundance of deep and sheltered harbours, and a large proportion of the population are fishermen and seamen. Communication by coasting vessel is especially easy on the island-studded Inland Sea, which is partly enclosed by the western promontory of Mainland, together with the large islands of Kiushiu and Shikoku.

The Japanese Group as a whole has a crescent shape, the "horns" pointing towards the mainland of Asia, with the result that Karafuto (in the north) is only a hundred miles from Amur Province, and Kiushiu (in the south) is but little farther from Chōsen (Korea). The mountains are forested, except where the lower slopes have been cleared for agriculture or stripped for fuel. The trees include the cedar, camphor, lacquer, paper mulberry and bamboo in the warm south, the oak and beech in Hokkaido, besides larch, spruce and pine in Karafuto. The presence of these forests, together with the restricted area of arable land, precludes the rearing of live stock other than for draught purposes, so that milk and meat are absent from the Japanese dietary, while fish is largely eaten with cereals, and vegetable oils serve as a substitute for butter.

Human and Economic Conditions.—The Japanese are of Mongol stock, but there has been a blending with the old Ainu race (which has not the characteristic straight hair, beardless face and almond eye of the Mongol), and a late infusion of Korean blood, while probably at some early date there were Polynesian immigrants. This admixture of races is due to the easy access to the Japanese Islands from the continent of Asia, and from the Pacific Islands, and to it may be traced the adaptability of the Japanese, and their enterprising character.

Although the most striking change in Japan has been the rapid growth of manufacturing by Western methods, the bulk of the population is still dependent upon agriculture. The holdings are very small, averaging 2.6 acres (rather more than one chō) per farm family. Consequently intensive cultivation, including much hand labour, the use of fertilizers, and the

Japan.

rotation of crops, is necessary, while the women and children must supplement the family resources by engaging in such occupations as silkworm rearing, spinning, straw-plaiting, and tea-picking. Female factory hands, too, are largely recruited from the country districts.

As in the monsoon lands of India and China, **rice** is the leading food crop, and is grown on the largest acreage ($7\frac{3}{4}$ million acres producing 300 million bushels in 1927). Home-grown rice is esteemed above imported varieties, but since high-grade rice is exported and the crop is a fluctuating one, it must usually be supplemented in the industrial centres by supplies from overseas. Millet and barley are grown on poorer or drier soils, where the necessary irrigation for rice is impossible, while in the cooler north also wheat, barley and rye take the place of rice. A considerable proportion, estimated at 20 million bushels, of the rice crop is used to make saké, the national fermented liquor.

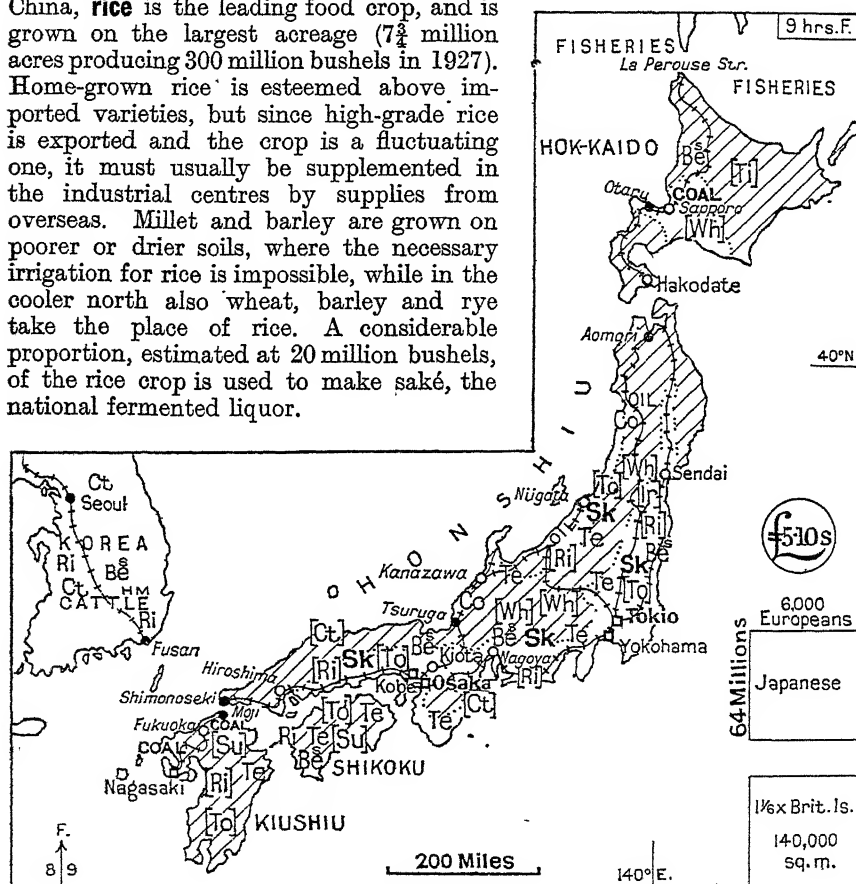


FIG. 57.—JAPAN.

Next in importance to rice is the **tea** crop, for which the rainy, well-drained hill slopes, and the open winters, are particularly suited. The yield is about $\frac{3}{4}$ million cwt. (84 million lb.), of which three-fourths is available for export. Of raw material for fabrics, **silk** is by far the most widely produced, the quantity of cocoons being 750 million lb. (1927), which gives Japan the premier place in the world's raw silk production. The long warm summers of southern Japan promote the growth of an abundance of leaves on the mulberry tree, which, like the tea-shrub, does well on hill slopes. **Tobacco** is grown in sufficient quantities to supply local needs, but the home-grown crops of cotton and sugar, both commodities in universal

Japan.

demand, are quite inadequate. The deficiency at home of food-stuffs and raw materials needed by her expanding population led Japan to seek them in neighbouring countries, and ultimately to acquire Korea and tropical Formosa, both capable of surplus production. **Beans** and **peas**, which are in general demand, and play an important part in crop rotation, are widely grown, especially in Hokkaido, and since the home crop is supplemented from Korea and China there is a surplus for export. Land reclamation schemes now in progress, coupled with advances in scientific agriculture, promise some increase in home-grown foods, with the exception of rice, but Japan Proper cannot hope to be self-supporting in this respect.

The **cannifer** crop, formerly very important, has greatly decreased, the bulk coming now from Formosa. This commodity is a Government monopoly, as are tobacco and salt, the three together yielding a revenue of about £8 millions.

Japan is not in a very favourable position as regards *minerals*, the deficiency in iron ore (130,000 tons produced in 1926) being specially marked, so that nine-tenths of the supply needed for the expanding iron and steel industry must be imported. The **iron** is found in various localities on Mainland, whereas the **coalfields** are in Kiushiu and Hokkaido. The coal raised amounts to 33 million tons, and since the southern fields are near Nagasaki and Shimonoseki there is an export of bunker coal, but there is also an import from Taiwan and China. **Copper** is the only mineral of which there is a good supply, the amount raised being over 66,000 tons, although there is no longer an export to Europe. The chief mines are on the west of Mainland and in Shikoku. There is also **petroleum** in Japan (1·8 million barrels of 42 gallons in 1927), but the quantity is insufficient for the country's needs, and the yield has steadily declined for the last ten years. The chief field is in Central Honshiu, but there is a very promising one at Akita, farther north, and a third in Formosa. **Phosphates** are mined on the little island of Rasa, 500 miles east of Formosa, where the mineral is of high quality and the reserves very large. About 100,000 tons are produced annually. **Sulphur** is mined in excess of local needs.

The *fisheries* are of considerable value, the fish and marine products (which include seaweed for paper) being worth £45 millions in 1925. The most important fishing grounds are in the cool seas round Hokkaido and Karafuto, which resemble the seas round Maine and Nova Scotia in the same latitudes, being well stocked with **cod** and **herring**, while there are **salmon** in the rivers. The fish are valuable not only as a staple article of diet, but also as a cheap and abundant manure. Japanese schooners also fish the more northern Siberian waters, and an increasing output of tinned salmon seriously competes with that of British Columbia.

The *manufactures* of Japan received an enormous impetus during the War, with the result that numbers of small, ill-equipped, ill-managed factories sprang into existence, turning out goods that were often inferior, or not up to sample and specification. Hence the reputation of Japanese commodities in foreign markets has suffered. Lack of education and ignorance of machinery on the part of the bulk of the workers has also proved a handicap, partly balanced by their manual dexterity, and by their low wages and long hours of labour, although all these conditions are slowly changing. The directing and managerial classes, and the clerical workers are, however, as skilled and efficient as those of Europe and of the United States,

Japan.

increase in the output of *fancy goods* of metal, wood, porcelain, lacquer, leather and paper. Of the miscellaneous manufactures that sprang into prominence since 1914, that of window-glass is an example. The home market is now supplied, and a surplus remains for export. Minor glass products include bottles, scientific and fancy glass, watch-glasses and beads, and the export total for 1920 was £2½ millions, but this fell to £1½ millions in 1927.

The adoption of Western style clothing by the army and navy and the business community has led to the manufacture of *woollen cloth*, and *boots* and *shoes*, for which raw material is imported. *Sugar* is refined, the raw material coming from Taiwan (Formosa) and the Indies; *beer* is brewed from local barley, to be marketed in India and Java; *starch* is manufactured from the potatoes grown in the cooler north. *Soap* and *rubber* are further examples of industries that have grown since 1914, it being easy for Japan to divert part of the copra and rubber supplies from the Pacific and Malay that formerly travelled West. The *chemical* industries are now on a large scale, and include the manufacture of synthetic nitrogen and superphosphates.

In addition to home manufactures there are Japanese enterprises abroad, including iron and steel works in Manchuria and Chōsen, cotton mills in China, sugar and jute factories in Taiwan, while the Manchurian Railway Company is Japanese, and much Japanese capital is invested in China.

Trade Relations.—Japan is well equipped with railways, nearly four-fifths of the total of 11,000 miles being Government-owned. Large sums have been voted for railway extensions and improvements, including the introduction of standard gauge. Where there is heavy traffic, e.g. round Tokio, electrification has been adopted. From Tokio lines run northward to the extremity of Honshiu, north-westwards to Niigata, a treaty port on the Japan Sea, and westward through Yokohama, Nagoya, Osaka, Kobe, and Hiroshima to Shimonoseki. Here a ferry crosses the mile-wide strait to Kiushiu, the railway running thence on to the port of Nagasaki. A tunnel under this strait has been discussed. Yokohama is the entrepôt for foreign export trade, being well placed in relation to San Francisco, Seattle and Vancouver. Kobe, on the Inland Sea, has the greatest share of the import trade, with Osaka as a competitor now that the latter has a deep-water harbour. Shimonoseki is the ferry port for Fusan, the terminus of the Chōsen railway through which China and Siberia are reached. Nagasaki, almost opposite Shanghai, is the port for Central and Southern China and Formosa. The chief northern seaport is Hakodate, the terminus of the Hokkaido railway, and the outlet for the coal and sulphur, timber, beans and potatoes which are sent south from that island. The Japanese merchant fleet has, according to Lloyd's, a gross tonnage of 4 millions, an increase of over 140 per cent. on 1914, and there are besides over 20,000 small sailing vessels and junks, which ply chiefly in home and neighbouring waters and among the Pacific Islands. There are now eight large steamship companies which maintain regular sailings to the principal ports of the world.

Japan now spends up to £60 millions on raw cotton, which makes up over a quarter of the total value of imports. Timber, wrought iron and steel, and mineral oil are other heavy items, and as the United States supplies, if not the bulk, yet a large proportion, of each of these classes

Japanese Leased Territory (Kwantung).

of goods, that country does nearly 30 per cent. of Japan's import trade. India has the second place, supplying about 15 per cent., chiefly raw cotton, jute, rice and hides. China comes third, supplying beans and bean cake (from Manchuria), oil-seeds, iron-ore and metals. Great Britain has usually the fourth place, supplying woollen goods and yarns, iron and steel goods and machinery, besides chemicals and dyes. Yet in all these categories the competition of Germany is felt, and the imports from Germany are now not far behind those from Great Britain. The demand for raw wool is met by Australia, and this commodity accounts for five-sixths of the trade from that country. The Dutch Indies, supplying raw sugar, copra, and petroleum, account for over £10 millions in value of the imports, while the imports from Canada—chiefly grain and lumber—coming next on the list, amount to only £5-6 millions.

The export trade is somewhat differently distributed. The United States, taking the major portion of the raw silk, comes first, but is followed by China, the leading market for Japan's cotton textiles, cotton, yarns, refined sugar, and miscellaneous manufactures. India, taking cotton textiles and miscellaneous bazaar wares, comes third; the Dutch Indies, with a similar market, fourth. The exports to the British Isles are small, silk goods and raw silk accounting for nearly half, while among minor items, tinned salmon and soya bean oil deserve notice. Sales of goods up to £10 millions are distributed among the smaller Far Eastern markets.

Japan has further a market for goods up to £30 millions in Chōsen, and up to £12 millions in Taiwan.

General Information.—A gold standard was adopted in 1897, and the unit of value is the *yen* (not coined) representing 0·75 grammes of pure gold ($= 2/0\frac{1}{2}$). The *sen* is $\frac{1}{100}$ part of a yen. Gold, silver and bronze coins, besides notes, are issued. The notes are amply covered by gold, and financial stability is assured. There are over 2,000 banks, the principal houses being the Nippon Ginko (Bank of Japan), the Yokohama Specie Bank, Mitsui Bank, and Sumitoma Bank, which have offices in London. Business is also done by branches of the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, and the National City Bank of New York. The metric system of weights and measures was adopted in 1921.

There is absolute religious freedom in Japan. Elementary education is compulsory, and higher education is given at 7,000 technical schools and in the five Imperial Universities, where there are 13,000 students.

London mails reach Japan via the Trans-Siberian Railway in 15-18 days, and via N. America in 24-32 days.

There are British Consular Representatives at Tokio, Yokohama, Osaka, Kobe, Nagasaki and Shimonoseki. There is a British Commercial Counsellor at Tokio. Japan is a Member of the League of Nations.

JAPANESE LEASED TERRITORY (KWANTUNG)

The leased territory of Kwantung was taken over by Japan from Russia in 1905. It forms the southern part of the peninsula of Liaotung, and lies

Japanese Pacific Islands.

across the mouth of the Gulf of Chili, opposite to Tientsin and Peking. The lease was extended by agreement with China for 94 years as from 1915. The territory covers 538 square miles, and has a population of over a million, of whom four-fifths are Chinese, and the remainder Japanese. Dairen, the commercial port, has an ice-free harbour, thoroughly well-equipped, and a population of over 80,000. It is a terminus of the Manchurian railway system, through which it is in direct communication with Siberia and China. The trade averages nearly £50 millions, imports and exports being approximately equal. The chief goods shipped are *soya-bean* cake and oil, and *ground-nuts*, this trade being mainly in Japanese hands. There is also an export of *coal*, *grain* and *wild silk*, all the commodities coming from Manchuria. The imports include Japanese cottons and other manufactures, and United States iron and steel goods, oil, machinery, boots and shoes.¹

Port Arthur is the military and naval station. Money, weights and measures are as in China, but Japanese currency also circulates. The Yokohama Specie Bank and Bank of Chōsen have branches at Dairen, where there is also a British Consul.

JAPANESE PACIFIC ISLANDS

Area and Population.—The Caroline Islands, including the Palau Group, the Marianne and Marshall Islands, with the former German possessions for which Japan holds a mandate, cover an area of about 1,000 square miles, and have a population of about 82,000 natives, 11,000 Japanese, and a few Europeans. The administrative centres are Yap and Palau (Western Carolines), Ponapé (Eastern Carolines), Sipan (Marianne Islands), and Jaluit (Marshall Islands). Nauru, one of the Marshall group, lying just south of the Equator, has been assigned to New Zealand. Guam, the largest of the Marianne group, was ceded to the United States in 1898. Yap is an important cable station, and its retention by Japan was opposed by the United States, but foreign cable rights have been safeguarded.

Position and General Information.—These islands are scattered over an area of many thousands of square miles, between latitude 20° N. and the Equator, and between longitude 135° E. and 175° E. The majority are of coral formation, and many are mere reefs, which are uninhabited. In the north of the Marianne group there are some volcanic islands, also uninhabited. The chief resources of the region as a whole are *copra*, the leading export, and *phosphates*, which are mined chiefly in Angaur Island of the Palau (Pelew) group, whence 30,000 tons of high-grade phosphatic rock are exported annually. The Japanese are taking steps to improve and extend the native agriculture, and sea-island *cotton* and *sugar* are grown for the Japanese market. Many of the natives are Malays and Chinese, besides Japanese immigrants, and there should therefore be less difficulty with regard to labour than in Polynesia generally.

¹ For Map see China, p. 117.

JAPANESE SAKHALIN (KARAFUTO)

Karafuto is that part of Sakhalin south of latitude 50° N. It has an area of 13,000 square miles, and a population of 203,000, largely Japanese settlers. It resembles Newfoundland in position and general character, having large *forests* of larch and fir from which paper *pulp* is manufactured, besides valuable herring *fisheries*. Fish is canned and fish fertilizer manufactured. In the forest clearings mixed farming has been begun, with assistance from the Japanese Government. There is an important *coal*-mine in the north-west, yielding over 275,000 tons annually.

JAVA

See **Dutch East Indies**, p. 152.

JUGO-SLAVIA

See **Yugoslavia**, p. 463.

KARAFUTO

See **Japanese Sakhalin**, above.

KASHMIR

See **India**, p. 255.

KENYA COLONY

See **British East Africa**, p. 70.

KHIVA

See **Turkestan**, p. 430.

KLONDIKE

See **Canada**, p. 95.

KOREA

See **Chōsen**, p. 128.

Latvia.

KURDISTAN

See **Turkey**, p. 432.

KWANTUNG

See **Japanese Leased Territory**, p. 286.

LABRADOR

See **Newfoundland**, p. 316.

LATVIA

Area and Population.—The Republic of Latvia has an area of nearly 25,000 square miles (five-sixths the size of Scotland), and a population of 2 millions, of whom over 300,000 live in Riga, formerly a leading Russian seaport and industrial centre. The high proportion of town dwellers is partly due to the extreme poverty of the peasants, and partly to the fact that the majority are landless, so that they are driven to seek factory work. The landowners and ruling classes have hitherto generally been Germans, while the masses are Letts, a people akin to the Lithuanians, but distinct from the Teutonic and Slavonic races. The Letts adopted the religion of their former masters and are Protestants. They are estimated at three-fourths of the total population, which includes, besides, large numbers of Germans, Russians and Jews, the last named mainly in the towns. Riga is the capital of the new Republic, the only other considerable town being Libau, with 60,000 inhabitants. Emigration to the United States and to other parts of Europe prevents any great increase of population. In 1921 the external trade was valued at over 6 milliards of Latvian roubles, the imports being nearly double the exports. Since 1924 the imports have averaged £10 millions, and the exports have risen steadily to £9 millions, so that the *per capita* trade is nearly £10, and is increasing.¹

Position and General Physical Conditions.—Latvia lies on the eastern margin of the Baltic Sea, between latitudes 56° N. and 58° N., i.e. roughly it lies opposite to Dundee. The summers are somewhat cool, and the winters cold, although not excessively severe; the rainfall and snowfall are moderate. The country is level, or but slightly undulating, and is covered with soils of glacial origin, which include, besides some fertile loams, considerable areas of dry and almost pure sand, and areas of water-logged clay, unsuitable for cultivation. On much of the sandy soil coniferous forests occur, while there are marshes, peat-bogs, and many lakelets on the clay. Forests are extensive, and consist chiefly of conifers (softwoods) with some admixture of elm, birch and aspen. They are a leading economic asset of the country.

The chief river is the Dwina, which rises in the Central Heights of Soviet

¹ For Map see **Estonia**, p. 169.

Latvia.

Russia and flows through the country from east to west, falling into the Gulf of Riga. Smaller streams are the Livonian Aa, the Courland Aa and the Windau. All these rivers are, of course, frozen during the winter months, but in the spring they are very valuable for floating timber, which is felled during the winter.

Human and Economic Conditions.—It is due probably to the enterprise and example of the German land-owning class that methods of agriculture are more advanced in Latvia than in neighbouring Lithuania. The farms are well-equipped, artificial manures are used, and a suitable rotation of crops is practised. The sand-dunes, which gradually creep inland, have been consolidated by planting, but there is still room for the extension of the cultivated area by drainage of the wetter lands. **Rye** and **oats** are the principal cereals, since the climate is unsuited to wheat, and a considerable quantity of **barley** is also grown. A large acreage is under **potatoes**, which are used for the distillation of alcohol and the manufacture of starch, while of even greater commercial importance is the **flax** crop, which comes chiefly from the east of the country, where it forms part of the great flax region of Russia generally. The light, sandy soils found in many districts are suitable for market gardening, and there is a considerable output of *vegetables* and small *fruits*, which are mainly sent to the large towns.

Of the animal industries **cattle**-rearing is the most important, since, as the proximity of the Baltic Sea keeps the air humid, grasses and forage crops do well. *Butter* and *meat* are both important articles of commerce, as are *eggs* and poultry (especially geese). **Sheep** are more numerous than horned cattle, but they include a minority of animals of fine-woolled breeds, and very little wool is sent out of the country. There are about half a million **pigs**, and bacon and hams are prepared for export at Libau. In no part of Eastern Europe are the conditions for *dairying* and allied industries so favourable as along the Baltic margin, and there should be an expansion of output now economic order is restored.

The **timber** resources of the country have been mentioned: the forests are on the whole scientifically managed, but here, as in nearly every part of the world, there is room for improvement, in order that the forests may be an improving, instead of a dwindling, asset. Much of the inferior wood is cut for **wood-pulp**, and the pulp, paper and cellulose industries are important, especially at Riga. Water-power development schemes are on foot.

The city and seaport of Riga, the leading shipping centre of the Eastern Baltic, is naturally the chief centre of manufactures, since coal must be imported, and there are excellent facilities for obtaining raw materials from Central Russia and from abroad. These industries include flour-milling, paper-making, general engineering, *rubber* manufacture (on a very considerable scale), preparation of vegetable-oils (partly from linseed), dressing and spinning of flax and hemp, manufacture of cotton and woollen textiles, of tobacco, chemicals, matches, furniture, veneer, boots and shoes, varnishes, and other articles of minor importance. Libau, the second port of Latvia, is also the second centre of industry, its activities including flour-milling, bacon-curing, engineering, tanning, veneering and the preparation of linseed-oil.

Trade Relations.—Broadly speaking, the ports of Latvia send

Liberia.

the typical "Baltic Produce"—timber and wood-products, flax, hemp, linseed, grain, animal products—westwards to industrial Europe and the British Isles, in return for coal, certain raw materials, fish, manures, and manufactured goods. Much of this trade is carried on British bottoms and handled by British merchants, and the part played by the United Kingdom in supplying the needs—e.g. as regards textiles and metal goods—of the Republic and its hinterland should be a leading one. Actually, however, while making large purchases of sawn timber, pit props and flax, Britain is far outstripped by Germany as a source of manufactured goods. Germany takes a large proportion of Latvian butter and provisions, while a leading British export to Latvia is cured herrings. The position of Riga, at the head of the Gulf of that name, is of advantage as giving ready access to the surrounding land areas, but the Gulf is ice-blocked in winter, and a channel for steamers must be kept open by ice-breakers. Even this is not always possible, for several large islands partly close the mouth of the Gulf, and in certain states of the wind pack-ice may accumulate and block the fair-way. Windau, lying on the open shore of the Baltic, and Libau, similarly situated, but considerably farther south, are free from these disadvantages, and hence do an especially important winter trade, but the accommodation at Windau is not very extensive, although it has large cold-storage facilities. Riga and Windau have through communication with Russia, for which they are important sea-ports.

General Information.—The unit of currency is the *lat*, of a value 25·22 lats to £1. The metric system of weights and measures has been adopted. Latvia has entered into fiscal union with Estonia. The Latvian State Bank has London agents. Mails reach Riga in 3½ days, or by air mail in 1½ days. There is a British Consul at Riga, and a Vice-Consul at Libau. Latvia is a Member of the League of Nations.

LEEWARD ISLANDS.

See **British West Indies**, p. 89.

LIBERIA

Area and Population.—The Republic of Liberia has an area of about 43,000 square miles (1¼ times the area of Scotland), and a population of from 2 to 2½ millions. Of these, however, only a small fraction take any part in the political life or economic development of the country. They include the 20,000 American negroes, representing the original colonists who were freed slaves, and about 60,000 indigenous negroes, who by contact with the American Liberians have become more or less civilized and Christianized. These two groups speak English. There are also a few British negroes and Europeans. The total trade does not usually exceed £½ million, although it is showing an upward trend. Roads, bridges, sanitation, tools, and elementary education are alike lacking, but some road-making has begun. The capital and principal port of entry is Monrovia, with about 10,000 inhabitants.

Position and General Conditions.—Liberia lies on the coast of West Africa, between British Sierra Leone and French Ivory Coast. It extends inland to the high rim of the West African plateau, which forms the Upper Niger watershed. It lies between 4° and 8° N. of the Equator, and has an exceedingly hot, humid climate, with a brief dry season in the winter months. The vegetation is mainly tropical forest, and forest produce is the chief economic asset of the country, cultivation being neglected except for local needs. Wild **coffee** is the staple product, while *palm oil* and kernels, *piassava* fibre (from the raphia palm), *kola nuts*, *chillies*, *beeswax*, wild *rubber* are all obtained in small quantities from the more accessible parts of the forests. The climate and soil conditions are suitable for rubber, rice and cacao, but the quantities grown are small. Rice is imported, together with building materials, Manchester goods, ready-made clothing, gin, tobacco, dried fish and hardware. Trade is with Great Britain, Holland, Germany and the United States.

British money, weights and measures are used, but accounts are kept in dollars and cents. There is a branch of the Bank of British West Africa at Monrovia. This port has direct cable connection with New York and Europe, and two wireless stations. Mails arrive in 13–21 days. There is a British Consul-General at Monrovia.

LITHUANIA

Area and Population.—The boundaries of the Republic of Lithuania are not finally fixed, and certain areas are disputed with Poland. The undisputed territory covers about 20,000 square miles and has rather over 2½ million inhabitants. The Lithuanians are a branch of the Indo-European family, distinct from the Slavs (Russians and Poles) on the one hand, and from the Teutons (Germans) on the other, and having a language, literature and culture of their own. It is probable that they form little more than two-thirds the total population of the new Republic, which includes within its boundaries important minorities of Russians, Jews (especially in the towns) and Poles. The external trade averages rather over £10 millions, or over £4 a head, and it is significant that taking a five-year average, exports have balanced imports, i.e. the country is not obtaining credit abroad in the wholesale fashion of many of the new States. The capital and chief town, Vilna, with a population of over 200,000, is in the occupation of Poland, while Kovno, the actual seat of Government, at the junction of the Niemen and Viliya rivers, has 90,000 inhabitants; Memel, the principal sea-port, has 36,000. Other towns are mere market centres. A majority of the population are Roman Catholics. Temporary emigration of the young male peasantry to East Prussia and Poland, and permanent emigration to the United States, normally exist on a considerable scale, owing to the poverty of the masses.¹

Position and General Physical Conditions.—Lithuania lies on the eastern margin of the Baltic Sea, and marches with East Prussia, Poland, Russia, and the new Republic of Latvia. Situated as it is in the latitudes of the English Lake District and Southern Scotland, it has a short, cool summer, and, since the Baltic exercises but little modifying

¹ For Map see Estonia, p. 169.

Lithuania.

influence, a winter with average temperatures well below freezing-point. The rainfall is moderate, and falls chiefly in summer. The country is level, save for the Lithuanian Heights in the south-east, and is covered with soils of glacial origin. Some of these are fertile, but they also include sands which are too dry, and clays which are too water-logged, for cultivation, and there are considerable areas of lake, marsh and heath. Much of the original forest which clothed Northern Europe still remains, the trees being mainly coniferous, but with some admixture of the more valuable oak. Birch and aspen, too, are common, and timber is among the most valuable of the country's resources. The country is drained to the Baltic Sea by the Niemen and Viliya, which are navigable except when closed by ice in winter.

Human and Economic Conditions.—The state of the peasantry has already been noticed, and, as would be expected, methods of agriculture are primitive and the standard of living is low. Owing to the unfavourable climate the staple cereal is the hardy **rye** ($\frac{1}{2}$ million tons in 1928), which forms the main breadstuff of the people, while **oats** are second in importance, and comparatively little barley and wheat are grown. **Potatoes** are grown in considerable quantities ($1\frac{1}{4}$ million tons in 1928), and are largely used in the preparation of industrial alcohol and starch. **Flax** is of importance in the east, and when the home demand (for homespun chiefly) is met, there remains some 30,000 tons for export, besides a quantity of **linseed**. *Forests* cover about one-fourth the total surface, and await proper handling and development, when there should be a valuable **timber** trade. **Cattle** (over 1 million) are numerous, and their milk is made into butter, which is an article of export, and together with *poultry* (mainly geese), eggs, vegetables and fruit, provides the farmer with the small money income which suffices for his needs. Sheep are kept on a considerable scale to supply the peasants with meat and sheep-skin clothing, and **pigs** are nearly as numerous as cattle. Industries are limited to brewing, distilling, grain-milling and tanning.

Trade Relations.—Lithuania has timber and food-stuffs, hides, flax and linseed to send to the industrial and commercial centres of North-western Europe and to Great Britain in return for manufactured goods of the simpler and cheaper types, e.g. coarse textiles, tools and domestic wares, and for sugar and wheat-flour for the more well-to-do classes, the two latter commodities coming partly from central and south Russia. There is a preponderance of trade with Germany, both inward and outward, since the needs of the countries are complementary. The chief gateway into the country is the port of Memel, which is, however, closed by ice in winter. Communication can be maintained through Libau in neighbouring Latvia, which is always ice-free.

General Information.—The unit of currency is the *litas*, established on a gold basis and equivalent to a tenth of the American gold dollar. The Lithuanian paper *marks* previously in circulation have been withdrawn since 1923. The Lietuvos Bankas (Lithuanian Bank) has London agencies. The metric system of weights and measures is in use. Mails reach Kovno in $2\frac{1}{2}$ days, or in $1\frac{1}{4}$ days by air. There is a British Consul at Kovno and a Vice-Consul at Memel. Lithuania is a Member of the League of Nations.

LORRAINE

See **France**, p. 179.

LUXEMBURG

Area and Population.—The Grand Duchy of Luxemburg has an area of nearly 1,000 square miles and a population of rather over 250,000. The capital city, Luxemburg, has 52,000 inhabitants. Luxemburg was formerly a member of the German Customs Union, and separate trade figures are not available. A recent referendum showed a preponderance of votes in favour of economic union with France, but in July, 1921, an agreement was concluded with Belgium, and the Customs frontier between the two countries is suppressed.

Position and General Conditions.—Luxemburg is a hilly country on the south-eastern margin of the Ardennes, and is drained by tributaries of the Moselle, which river forms its south-eastern boundary. It marches with Belgium, Germany and France, and in the south is of the same formation as the Lorraine region, which is exceedingly rich in iron. Nearly 40 per cent. of the population is engaged in agriculture, the crops being similar to those of Belgium—cereals, beet, potatoes—while considerable attention is paid to orchards and market-gardening, *fruit* and *vegetables* being exported. The land is generally divided into small holdings of 2½ to 5 acres. *Vines* grow on the slopes of the Moselle and other steep-sided river valleys.

The great wealth of the country lies in its **iron ore** (*minette*), notable for its high phosphorus content, which although of rather low grade is easily worked, and of which over 7 million tons were produced in 1913. This quantity was reduced to 3 million tons in 1919. The ore is mainly exported to Belgium, but a considerable quantity is smelted locally. Hence the need to import coke from the neighbouring Saar coal-field brought the industry almost to a standstill during the War. In 1919 there was a revival, and 20 blast furnaces out of 42 were in operation, besides 7 steel works, and 5 rolling mills. The value of the output was about £18 millions. During the last five years the pre-War output of ore has been maintained and even exceeded, a total of 47 blast furnaces have been in use, and the output has averaged 2½ million tons of pig iron, and the same quantity of steel, valued at over £20 millions. The *pig iron* and *steel* products are exported to Belgium and France. All classes of manufactured goods, besides colonial wares, are imported. Since 1921 German coke has been obtained from the Ruhr Basin, the cost of carriage to Luxemburg being less than to Lorraine, and the removal of the export tax led to the sales of Luxemburg pig to Germany. German industrial groups have also obtained control of a part of the ore supplies. The language spoken is French, the currency is as in Belgium, and the metric system of weights and measures is in use. The International Bank of Luxemburg is the chief banking establishment. Mails arrive in 13 hours. There is a British Consul at Luxemburg.

MACAO

General Information.—Macao is a Portuguese possession in China, covering 4 square miles, and having a population of 84,000, of whom about 4,000 are Europeans. It is situated at the mouth of the Canton River, opposite Hong-Kong. The trade (nearly £3 millions) is in the hands of Chinese, and is mostly transit, the exports being tea, silk, cotton yarn and other staples of Southern China, and the imports rice, cotton piece goods, petroleum, etc. There is a branch of the National Overseas Bank of Portugal at Macao. The port is well served by European and Japanese steamers and by junks.

MACEDONIA

See *Greece*, p. 234.

MADAGASCAR

Area and Population.—Madagascar was declared a French Colony in 1896, and is administered by a Governor-General. It has an area of 240,000 square miles, i.e. is considerably larger than France, with a population of over 3½ millions. Apart from some 18,000 French, and 10,000 other Europeans and Hindus, the whole of this population is of the Malagasy race, i.e. akin to the peoples of South-east Asia, and not to those of the neighbouring continent of Africa. The Hovas are the most important and intelligent group, numbering over a million, of whom a large proportion are Christians and have received some education. The total trade averages £8 millions or over £2 per capita, the imports exceeding the exports, since much money is being expended upon public works and commercial development. In 1919, owing to high prices and accumulated stocks, this situation was reversed. The capital, Antananarivo, has a population of 70,000, while in the principal ports, Tamatave and Diego Suarez, there are 15,000 and 8,000 respectively. Majunga and Fianarantsoa are other important centres.

General Physical Conditions.—Madagascar is an island in the Indian Ocean 980 miles long and about 300 miles broad. It stretches from about latitude 12° S. to 25° S.—roughly the latitudes of Southern Rhodesia and the Northern Transvaal. The Mozambique Channel, with a minimum width of 240 miles, separates it from South-East Africa. Although lying almost wholly within the tropics, it resembles South Africa in being mainly of an elevated character (3,000 to 6,000 ft.), and on the highlands the climate is pleasant and healthy as in Rhodesia. Lying in the track of the south-east trade winds, Madagascar receives a heavy rainfall, diminishing from east to west in summer, and from north-east to south-west in winter, when the winds shift somewhat. Hence the eastern and northern coast plains and mountain slopes are very wet and are clothed with tropical forests, while on the highlands there are grasslands similar to those of South Africa, and on the western plains and on the dry south-west region there are lighter woodlands and thorn bush.

Madagascar.

Human and Economic Conditions.—The population is largely found on the highlands, where Antananarivo stands, connected by rail with the port of Tamatave. Here the abundance of natural pasture makes **cattle**-rearing the leading industry, there being over 7 million head of horned cattle in the country. Hence there is a large surplus of *hides*, and a meat-packing industry is established on a small scale in the leading towns and ports, an export trade being well established.

About $3\frac{1}{2}$ million acres are under cultivation, 9 per cent. of this total being worked by Europeans. The slopes of the uplands are well-suited

to *coffee*, while *rubber*, *sugar*, *cacao* and other tropical plantation products do well on the coastal belt. Much **rice** is grown, and with *manioc*, *vanilla* and *butter beans* makes up an important total of food-stuffs exported.

Of forest products, wild *rubber*, *tanning barks*, and *raphia* palm fibre, as being easily collected and handled, are all (especially the last named) exports of considerable value, while very important timber resources await development.

The mineral resources of the country are not fully known, but **gold** dust is collected, and recently Madagascar has taken a leading position in supplying the world with **graphite** (output 15,000 tons), thus causing a serious setback to the graphite mining industry of Ceylon. Both these minerals are widely distributed on the high plateau, and *mica* is also of some importance.

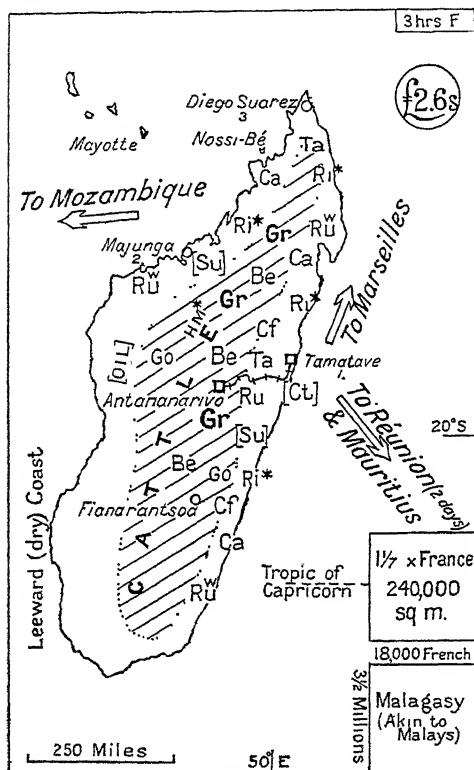


FIG. 58.—MADAGASCAR.

Trade Relations.—Owing to the existence of good shipping facilities the bulk of the trade of Madagascar is through Marseilles, where the tropical food-stuffs and raw materials naturally find a ready market. Cotton goods and drapery for the native market make up three-fourths of the imports, of which Great Britain supplies a small proportion in return for graphite, beans and rubber. The neighbouring islands of the Indian Ocean, e.g. the Mascarenes, which are engaged in sugar production, also offer a near-by market for food-stuffs, such as rice, meat and lard. Petty trade is largely in the hands of Indian merchants and retailers, and native vessels bring Indian bazaar goods and food-stuffs from Bombay to Diego Suarez. Good roads have been constructed between the principal centres, over

Malay States.

which communication is maintained by motor. The railways are being extended.

General Information.—The coinage, weights and measures are as in France, and the Comptoir National d'Escompte de Paris has agencies in the chief towns. The French language is compulsory in all schools. There is cable communication with Mozambique, Mauritius and Aden, and a good local telegraph system. Mails arrive in 32–34 days. There is a British Consul at Antananarivo, and Vice-Consuls at Tamatave and Majunga.

MADEIRA

Area and Population.—Madeira is treated as an integral part of Portugal, sending representatives to the legislature at Lisbon. The area of the island is 314 square miles, and the population (of Portuguese extraction) is about 180,000 or nearly 600 to the square mile. In the chief town and seaport, Funchal, there are 25,000 inhabitants. Women are considerably in excess of men, since the latter emigrate in considerable numbers to Brazil and the United States. Lying as it does on the direct route from Europe to South America, West Africa and South Africa, Madeira is an important cable centre and calling place for ships.

Position and General Conditions.—Madeira lies about 500 miles to the south-west of Lisbon, in latitude 33° N., and 17° W. The island is hilly and well watered, and clothed with a rich sub-tropical vegetation. The climate is hot in summer, but pleasantly warm and sunny in winter, giving the island its importance as a tourist and health resort. The land is divided up into small holdings, which are intensively cultivated. The hill-sides are terraced, and the water from the mountain streams and rivulets is led over the crops and orchards, the cultivators purchasing the use of the water for so many hours. The *vine* is the most important crop, and *wine* is a leading export. Many *fruits* are grown, including *pineapples* and *bananas* for export. Early vegetables, including *potatoes*, are also sent to Portugal. The *cereal* crops are insufficient for local needs, and are supplemented by imports. *Sugar*, once the leading staple, is now of minor importance. Labour, and especially female labour, is very cheap, and in consequence handicrafts are important, especially *embroidery* and *wickerwork* (chairs, tables, baskets), which furnish an export trade. Articles of luxury are imported for sale to visitors, besides wheat and flour, coal, timber, drapery and hardware, tobacco, beverages and colonial wares.

The language spoken in Madeira is Portuguese, and currency, weights and measures are as in Portugal. The Bank of Madeira and the National Overseas Bank of Portugal do business in the island. Mails arrive in 4–7 days. There is a British Consular representative at Funchal.

MALAY STATES

See *Malaya*, p. 298.

MALAYA (STRAITS SETTLEMENTS, FEDERATED AND NON-FEDERATED MALAY STATES)

Area and Population.—The Straits Settlements, Federated and Non-Federated Malay States, comprise the southern portion of the Malay Peninsula, and form a single economic unit. The Straits Settlements are a Crown Colony administered by a Governor, and include a series of islands and small strips of territory on the west coast of Malay, commanding the Malacca Straits. The total area is 1,600 square miles, and the population a million, of whom 540,000 are in Singapore, 300,000 in Penang (including Province Wellesley and the Dindings), 190,000 at Malacca. Over half the number are Chinese, and over 10 per cent. Indians, the remainder, apart from a few thousand Europeans and Americans, being Malays.

The Federated Malay States are under British Protection, and there is a Resident at each Court. They include Perak, Selangor, Negri Sembilan, and Pahang, with a total area of 27,500 square miles, and a population of 1½ million. Of this number, under 40 per cent. are Malays, 38 per cent. are Chinese, 25 per cent. Indians, and between five and six thousand are Europeans and Americans.

The Non-Federated States are under British suzerainty, and have at each Court a British Adviser. They include Johore, Kedah, Perlis, Kelantan and Trengganu, covering in all an area of 23,500 square miles, and having a

population of over a million, of whom over 170,000 are Chinese.

Thus the whole of Malaya covers 52,600 square miles (rather larger than England), and has a population of over 3 millions, among whom there are more than a million industrious Chinese, and some hundreds of thousands of Indian coolies, the labour supply thus being assured. Good schools and an efficient medical service are maintained by the Government throughout the country.

The total annual foreign trade passing through the Straits Settlements (excluding transhipments) averaged in 1917-1920 about £195 millions, in 1923-1928, £225 millions, and this represents the bulk of

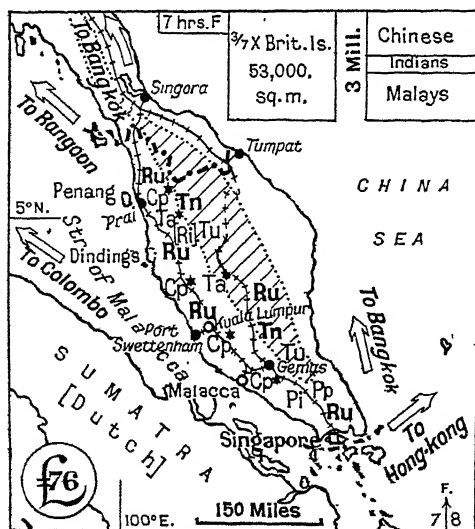


FIG. 59.—MALAYA.

the trade of all Malaya, working out at £76 per head of population. Singapore also handles an enormous bulk of goods which merely change bottoms, since it stands almost on the Equator, at a point whence

Malaya (Straits Settlements and Malay States).

routes naturally diverge to all the major and minor ports of the Indian and Pacific Oceans. Being at the extreme southern point of Asia, it must be touched by all east-west trunk traffic.

Position and Climate.—The Malay Peninsula stretches along a north-west to south-east axis between parallels 6° N. and the Equator. Looking westwards to the Malacca Strait (leading to the Indian Ocean), and eastwards to the China Seas, it is swept alternately by the south-west and north-east monsoons, so that it has abundance of rainfall and a uniformly high temperature (above 80° F.) all the year round. The plentiful water supply allows of hydraulic sluicing at the mines.

General Physical Conditions.—Both from the east and west coasts the ground-level rises steadily to a central mass of mountains, about 6,000 ft. high, which runs from north-west to south-east. The rivers are swift, and only suitable for navigation near the mouths. Except where cleared for agriculture, Malaya is clothed with a typical dense equatorial forest, rich in palms, wild bananas, bamboos and creepers.

Human and Economic Conditions.—The most important product of Malaya during the twentieth century has been plantation **rubber**. The similarity of the climate to that of the Amazon basin allows the hevea (Para rubber) tree to be grown with success, and the output has risen from 250 tons in 1906 to over 200,000 tons in 1922, and over 250,000 tons in 1928. Nearly half of the rubber comes from the Federated States of Perak and Selangor, some 9,000 tons from the Non-Federated States (chiefly Johore), and the rest from the Colony. The rapid increase of production led to a glutted market in 1920, and efforts were made to ensure voluntary restriction of output: restrictions were finally imposed on British growers to which Dutch planters were not subject, and were removed in 1928. The world consumption of rubber is increasing, and now that the boom in new plantations has ceased, prices should steady at an economic level. The Singapore market receives and re-exports the rubber produced in British Borneo, besides some 150,000 tons from the Dutch Indies, grown principally in Sumatra and Dutch Borneo.

Although overshadowed by the enormous production of rubber, the **coco-nut** and **tapioca** plantations are also of great value and are steadily extending. *Rice* is also grown, both by the Malays and on the plantations, but the crop is insufficient for the needs of the large immigrant population. Government irrigation works have been constructed to increase this crop, and in 1919 laws were brought into force compelling mine and estate owners to plant staple food-stuffs in the proportion of one acre to every ten labourers employed. The trade in copra is now well over £5 millions, of which some £2 millions represent copra from the Dutch Indies marketed at Singapore. The export of pearl tapioca averages £½ million annually, and there is also a trade in tapioca flour, some of which comes from the Dutch Indies.

Another industry of long standing is the cultivation of *pepper*, and Malaya is also an important source of *areca* nuts (betel), which find a large market in the East, of *gambier* used in tanning, of *rattans*, and of *sago*. Tropical fruits, including *pineapples*, are extensively grown, and are canned at Singapore. These secondary agricultural and forest products have in the

Malaya (Straits Settlements and Malay States).

aggregate an export value of £10 millions, and are a useful stand-by during periods of depressed prices for rubber.

Throughout its length, the Malay Peninsula, together with the adjacent islands of the same rock formation, is rich in **tin**, and Malaya has long been the chief source of the world's supply (total 160,000 tons) of this metal. The output is in the neighbourhood of 100,000 tons annually, and is second only in value to rubber. About one-third of this quantity is derived from ores imported from the Dutch Indies and Siam. The Chinese are found as labourers in the mines, as well as on the plantations, and nearly half the tin comes from mines owned and managed by Chinese. Up-to-date machinery is increasingly employed, and the smelting works are under European management at Penang and Singapore. Although the general fall in price levels led to stagnation in 1921, the demand is essentially steady or increasing, and world supplies being somewhat short, the industry has little to fear. *Wolfram* mining has made little progress, although this ore occurs widely through the peninsula. A *coal* mine is worked in Selangor, near the west coast (output 510,000 tons).

Trade Relations.—Malaya has a well-developed State railway system, which is rapidly being extended. The main line runs from south to north through the western (most productive) provinces, and links up with the Siamese railways in the north. A branch line runs from the north frontier of Johore through the centre of the peninsula, and this will be continued through Kelantan to the east coast. There are also over three thousand miles of good metalled roads, besides native roads and paths. The principal road runs from Singapore through Malacca Town and Kuala Lumpur to Prai opposite Penang.

Previous to the War, the bulk of the tin, rubber, pepper and copra of Malaya came to the United Kingdom, a proportion being re-exported thence to Western and Central Europe and to America, while small quantities went directly to various European countries. The shipping difficulties of the war years turned the current of trade eastwards, and the rubber was auctioned at Singapore and sent to the United States, which in 1919 took Malay goods (including tin) to the value of £35 millions, as compared to £5 millions in 1914. The return trade from the States was of much less value, rising from £800,000 to £2 millions only.

Japan also developed a considerable import trade in rubber, and this country increased threefold her exports to the Straits, these reaching £3 millions in 1919 and £3½ millions in 1920.

A summary statement for 1928 (a year in which total trade was below the average in value) showed that as regards imports, the United Kingdom supplied only 16 per cent., including 30 per cent. of the manufactured goods, and over 50 per cent. of the tobacco and alcohol. Other parts of the Empire, notably Burmah, Australia, Hong Kong and British Borneo, supplied 20 per cent.; Europe supplied 6 per cent., the United States 3 per cent. and Japan only 2 per cent., leaving over half the total to be supplied by other Asiatic countries, notably Siam and the Dutch Indies. Imports from the latter are mainly for re-export. As regards exports, 11½ per cent. went in 1928 to the United Kingdom, 12½ per cent. to other parts of the Empire, 12 per cent. to Europe, nearly 4 per cent. to Japan, 18 per cent. to other Asiatic countries, and no less than 42 per cent. to the United States, which took over half the tin, and two-thirds of the rubber.

Malay (Straits Settlements and Malay States).

Owing to the fact that about half the population of Malaya is engaged on the production of commodities solely for export, a very large quantity of food-stuffs is necessarily imported, although the Government action already noted should partly remedy this. Rice forms the heaviest item (about £12 millions), coming from Burmah and Siam, and to a less extent from French Indo-China. About one-third is re-exported to the Dutch Indies and British Borneo. Wheat flour is in increasing demand, and is supplied from Australia, together with condensed milk. Sugar comes in quantity from Java, and dried fish from Siam and French Indo-China, but the fish is mainly for re-export to Java and Sumatra. There is a large demand for cigarettes, which is supplied chiefly by the United Kingdom, and to a less extent by China and the United States. Tobacco comes from India.

The weaving of silk sarongs worn by the Malays is largely a native industry, but cotton piece goods and cotton sarongs are in demand, and the import is valued at £5 millions. Of this 40 per cent. comes from the United Kingdom, as against over 80 per cent. in former years; the remainder is from India (16 per cent.), Japan, Java and China. Mineral oil is imported in quantity from the Dutch Indies and British Borneo, and there is a large re-export to Australia. Coal (mainly for bunkering) comes from Durban, Japan and Dutch Borneo. The United States temporarily captured the market for motor-cars and accessories, but more than half the demand (which has increased ten-fold in the last decade to £3 millions) is now met by the United Kingdom. The rapid progress of railway construction and of facilities for communication generally (e.g. telephones) has led to a large demand for rolling stock, locomotives, construction material, electrical apparatus and so forth, in supplying which the United Kingdom has the largest share.

General Information.—There are thirteen banks having establishments in the Straits Settlements and Malay, including the Hong-Kong and Shanghai Banking Corporation, the Mercantile Bank of India, Ltd., the Chartered Bank of India, Australia and China, and the Yokohama Specie Bank. The standard coin is the dollar, par value 2s. 4d., which with the British sovereign is legal tender to any amount. Government currency notes are also in circulation. The measure of length is the English yard, and of area the acre. The native weights are still used commercially, including the *picul*, equivalent to 133½ lb. Mails reach Singapore in 22–23 days, and Penang 2 days sooner. There are Imperial Trade Correspondents at Singapore and Kuala Lumpur.

Christmas Island is a dependency of the Straits Settlements. Its area is about 62 square miles, and the population is 1,100. These are Chinese engaged in the export of **phosphates**, the sole commercial product of the island, which is mainly shipped to Japan and Australia and has an annual value of over £200,000. In return food-stuffs for the coolie labourers and mining officials, besides machinery, tools, trucks, etc., for the light railways and wharves, are imported. The island lies in the Indian Ocean to the south of Java, between 10° and 11° S. of the Equator.

Cocos or Keeling Islands.—This small group of coral islands is a dependency of Singapore, lying about 1,200 miles south-west of it, in the Indian Ocean. The population is about 800, dependent upon the coco-

Manchuria.

nut plantations and upon fishing. There is a wireless station on the islands, and a cable station. *Copra* is exported.

Labuan Island.—The Colony of Labuan is a dependency of the Straits Settlements. An island 30 square miles in area, it lies about 6 miles off the coast of British Borneo on the Bay of Brunei. The population numbers about 7,000 persons, who are engaged in trade with Borneo, in agriculture or in fishing. There is a *coal*-field on the island. The Resident is Imperial Trade Correspondent for British Borneo.

MALTA

Area, Population and General Conditions.—Malta is a British Colony administered by a Governor, who is also in command of the Garrison. It includes the two islands of Malta and Gozo, and has an area of 122 square miles and a population of about 250,000. The chief town and seaport is Valletta, with a population of 25,000. Malta lies about halfway between Gibraltar and Port Said, and 50 miles south of Sicily, in latitude 36° N. It commands the great trade-route between Western Europe, India and the East. The total trade, excluding transshipments, is valued at about £5½ millions, of which over £4 millions represents imports. This is due to the fact that supplies for the garrison and for civil servants are imported, while many Maltese are engaged about the harbours and docks, or as merchant sailors, since Malta is an important calling and bunkering station for ships. Such services form “invisible exports.” Bunkering coal is imported and exported to the value of about half a million sterling, while wheat and flour, sugar, petroleum and textiles are other heavy items on the import list. There is a considerable trade in luxury articles.

About 43,000 acres of land are under cultivation, **wheat** being the chief crop, although the harvest is quite inadequate to local needs. **Potatoes**, onions, tomatoes and other *vegetables*, besides citrus and other *fruits* are grown for export. Between 300 and 400 bales of **cotton** are also grown, and used in local cottage industries. The chief domestic animals are *sheep* and *goats*. There is a small manufacture of lace and cigarettes. The islands are over populated, and there is considerable emigration to the continent, the United States, and North Africa, the destination of the emigrants varying according to the state of the labour market.

Rather less than one-third of the imports are from British sources, manufactured goods coming mainly from Italy, to which also the potatoes are largely consigned.

Maltese and Italian are the languages in common use, although English is the language of administration. The currency consists of British coins and British Treasury notes. Maltese coins have been demonetized. The chief banking establishment is the Anglo-Maltese Bank. The unit of weight is the *rotoli* of 1½ lb. Mails reach Malta in 3½–5 days, it is also an important cable station. There is an Imperial Trade Correspondent at Valetta.

MANCHURIA

See **China**, p. 115.

*Mauritius and Dependencies.***MANITOBA**See **Canada**, p. 95.**MARIANNE ISLANDS**See **Japanese Pacific Islands**, p. 287.

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MARSHALL ISLANDSSee **Japanese Pacific Islands**, p. 287.**MARTINIQUE**

Area and Population.—The French Colony of Martinique is administered by a Governor. The total area is 385 square miles, and the population nearly 250,000 (over 400 per square mile). The foreign trade fluctuates in value with the price of sugar, the staple commodity, and is now about £4 millions annually, or £16 a head. Exports are normally in excess of imports. The chief port and commercial centre is Fort de France, with 26,000 inhabitants. The city of St. Pierre was destroyed by the eruption of Mont Pelée in 1902.

General Conditions.—Martinique is one of the lesser Antilles, lying in latitude $14\frac{1}{2}^{\circ}$ N., between the British West Indian Colonies, Dominica and St. Lucia. Like the neighbouring islands it has a fertile volcanic soil and an excellent climate, which, though tropical, is healthy. The chief commercial product is **sugar**, the distillation of **rum** (over 5 million gallons) being the principal industry. Next in importance is **cacao**, of which the export is valued at nearly £ $\frac{1}{4}$ million. The secondary money crops are coffee, tobacco and bananas, while manioc, maize and so forth are grown for local consumption.

The exports go mainly to France, while the United States takes the leading part in the import trade.

The unit of currency is the *franc*, and the chief bank, the Banque de la Martinique, issues loans for agricultural purposes. The Royal Bank of Canada has a branch in the island. Steamship connections are good, and there is indirect cable connection with America and France. Mails arrive in 14–16 days.

MAURETANIASee **French West Africa**, p. 194.**MAURITIUS AND DEPENDENCIES**

Area and Population.—Mauritius, formerly a French possession, became a British Colony in 1814, and is administered by a Governor. The area of the island is 720 square miles, while the dependencies, of which the

Mauritius and Dependencies.

island of Rodrigues and the Chagos Group (Diego Garcia) are the chief, cover about 80 square miles. The total population is 400,000, of whom 6,000 live in the dependencies: thus the density of population is 550 to the square mile. The average foreign trade is £8 millions, of which 66 per cent. represented exports during the years of sugar shortage immediately following the War. This works out at £20 per head, a high figure when it is remembered that nearly 70 per cent. of the population is Indian by birth, and that a majority of the Indians are independent land owners. The population of European (mainly French) descent numbers about 120,000, and there are besides a few thousand Chinese. The excess of births over deaths is very small, the death rate being high.

The capital and chief seaport is Port Louis, with 50,000 inhabitants. Another important town is Curepipe.

General and Physical Conditions.—Mauritius lies in the Indian Ocean, about 500 miles east of Madagascar, and 20° S. of the Equator: Rodrigues is about 320 miles farther east; while the Chagos Archipelago is in latitude 7° S., about half-way between Mauritius and India. Mauritius, Rodrigues, and the French island of Réunion form the group known as the Mascarenes.

The climate resembles that of Fiji, being uniformly, although rarely excessively hot, with a regular and sufficient rainfall from the S.E. trade winds. Hurricanes occasionally do great damage. The natural vegetation is an evergreen tropical forest, rich in palms and fruit trees. The Chagos Group resemble the smaller Pacific islands, the coco-nut being the principal tree.

Human and Economic Conditions.—Mauritius is dependent for prosperity upon a single staple, **sugar**, for which the climate, soil and coloured labour supply, make it admirably suited. The average production is about $\frac{1}{2}$ million tons (greater than that of the whole of the British West Indies), and sugar represents between 80 per cent. and 90 per cent. of the total value of the exports. Hence the prosperity of Mauritius varies directly as the price of sugar, and the war years led to an accumulation of capital in the hands of planters and merchants which was invested in the neighbouring territories of Réunion, Madagascar, Natal, Zululand, and so forth, while many public and private improvements were effected in the island itself, e.g. irrigation works, and the extension of hydro-electrical enterprises. Over 40 per cent. of the sugar is grown by Indians on their own small holdings.

One aspect of the danger of "one-crop" prosperity was shown during 1918–19, when the lack of shipping led to a grave shortage of rice and meat among the working-classes. As a result more *maize* has been planted, but this is not very acceptable to the Indians.

Ranking next to sugar, although on a comparatively small scale, is the cultivation and manufacture of **sisal hemp** (from a plant related to the agave), which is capable of development. Other successful crops are **tea**, which is, however, insufficient for the local demand, **citrus fruits** (limes, oranges, lemons), which are the staple of Rodrigues, and **ground-nuts**, to all of which it is hoped that more attention will be directed.

Coco-nuts are the staple of the Chagos Archipelago, and coco-nut oil is exported.

Mesopotamia.

Trade Relations.—The sugar of Mauritius went formerly to India, but was, during the years 1915–20, bought up by the Imperial Sugar Commission and now comes to England. There is a considerable import from India in the shape of rice, cottons and tobacco. Great Britain supplies cottons, machinery and metal goods, but supplies less than a quarter of the imports, since France is a strong competitor in the same goods, and can also fill the demand for sugar-milling plant, electrical goods, rolling-stock and other metal manufactures. There is also a good market for motor-cars, bicycles, pianos and similar luxury articles. Efforts are being made to strengthen the commercial relations between Mauritius and Durban, the nearest large British seaport. Durban can supply coal, maize, dairy produce, meat and certain manufactures, but makes no demand for sugar, which is locally produced. Port Louis harbour, where goods at present must be lightered, is to be greatly improved; it has a certain amount of entrepôt trade with Réunion and Madagascar.

General Information.—The metric system of weights and measures is employed, and the monetary unit is the Indian rupee (normally 1s. 6d.). The Mauritius Commercial Bank, Barclays Bank and the Mercantile Bank of India have offices in Port Louis. The French language and French law have been preserved under British rule, and the French population is Roman Catholic. Port Louis is four days' sail from Durban, and fourteen from Colombo. London mails take about four weeks to reach this port. There is cable communication with Durban, Australia and Zanzibar, and the military wireless station may be used for commercial purposes. The Colonial Secretary at Port Louis acts as Imperial Trade Correspondent.

MAYOTTE AND THE COMORO ISLANDS

Area and Population.—The Comoro Islands (Mayotte, Grande Comore, Anjouan and Moheli) form a French Colony attached to Madagascar. The area of the group is 790 square miles, and the population about 120,000.

Position and General Conditions.—The Comoro Islands lie between 11° S. and 13° S. at the northern entry of the Mozambique Channel, between Madagascar and East Africa. The climate resembles that of the smaller Pacific islands, and the natural vegetation is tropical forest, which contains valuable timber trees, of which there is some export. The islands are an important source of supply of **vanilla** and **perfumes** (patchouli, ylang-ylang, citronella), and **cacao** is also successfully grown. The nearest British seaport is Zanzibar (500 miles), through which much of the trade passes, and the nearest British Consular agent is stationed at Majunga, the western port of Madagascar. Coins, weights and measures are as in France.

MESOPOTAMIA

See *Iraq*, p. 266.

MEXICO

Area and Population.—The Republic of Mexico was engaged in civil war from 1913 to 1920, so that its economic development has been seriously hampered. The area of the country is 767,000 square miles (rather more than six times the area of the British Isles, and the population is 15 millions, or under 20 persons to the square mile. Of these about 19 per cent. are of European descent (chiefly Spanish), 43 per cent. are of mixed blood, and 38 per cent. pure Indians, of whom a large number live in primitive fashion, following their old tribal customs. The Federal Capital, Mexico City, has nearly 1 million inhabitants, while Guadalajara, in the fertile Rio Grande de Santiago, has over 140,000, and Puebla, near the capital, nearly 100,000. S. Luis Potosi, Monterey, Merida (Yucatan), Leon, and Vera Cruz (the chief seaport) have populations of 50,000 or more, while some thirteen other towns have over 20,000 people. The total trade for 1918 was £53 millions, of which nearly 70 per cent. represented exports. This was, however, under £4 a head, an exceedingly low figure for so rich a country. The 1919 total increased to £69 millions, and the 1920–21 average was £200 millions, or £13 a head. This was, however, a period of abnormal prices, and the present average is £120 millions, or £8 a head. A great deal of foreign capital is invested in Mexico, and American, British, Spanish and French enterprises account for much of the export trade. The foreign population numbers over 100,000, of whom about one-fourth are Spanish, and nearly one-fourth from the United States. Orientals number about 20,000, principally Chinese. There are Universities at Mexico City, Guadalajara and Merida, but a considerable percentage of the population are illiterate.

Position and General Physical Conditions.—Mexico lies to the south of the United States, and is open to the Gulf of Mexico on the one hand and to the Pacific Ocean on the other. It stretches from latitude 14° N. to latitude 33° N., about half the land lying in the temperate and half in the torrid zone: thus it corresponds in latitude to Central and North-Western India. The climate is, however, modified by the fact that the greater part of the country is an elevated plateau, sloping from 10,000 ft. in the hotter south to 3,000 ft. in the north, and averaging over 6,000 ft. Thus a series of climate belts, tropical, semi-tropical and temperate (*caliente*, *templada* and *frio*), is found one above the other. The plateau is bounded by mountain chains prolonging the American Rockies, of which the Sierra Madre in the west is the most well marked. In about the latitude of Mexico City the bordering chains alter their direction and run from west to east, thus meeting the eastern sierras. This region is volcanic, a famous peak being Popocatepetl. In the Isthmus of Tehuantepec, which is 130 miles from north to south, the highlands sink down so that there is a gap, very useful for transport, not more than 1,000 ft. high. Farther east the Guatemala Highlands begin, but in Yucatan, the peninsular extension of Mexico northwards, the level is generally low.

North-western Mexico, like similarly situated parts of West Africa and India, suffers from a deficient rainfall, but the south and east have abundant summer rains. On the plateau, however, the bordering ranges shut off the rain-bearing winds, and the rainfall is increasingly scanty from south to

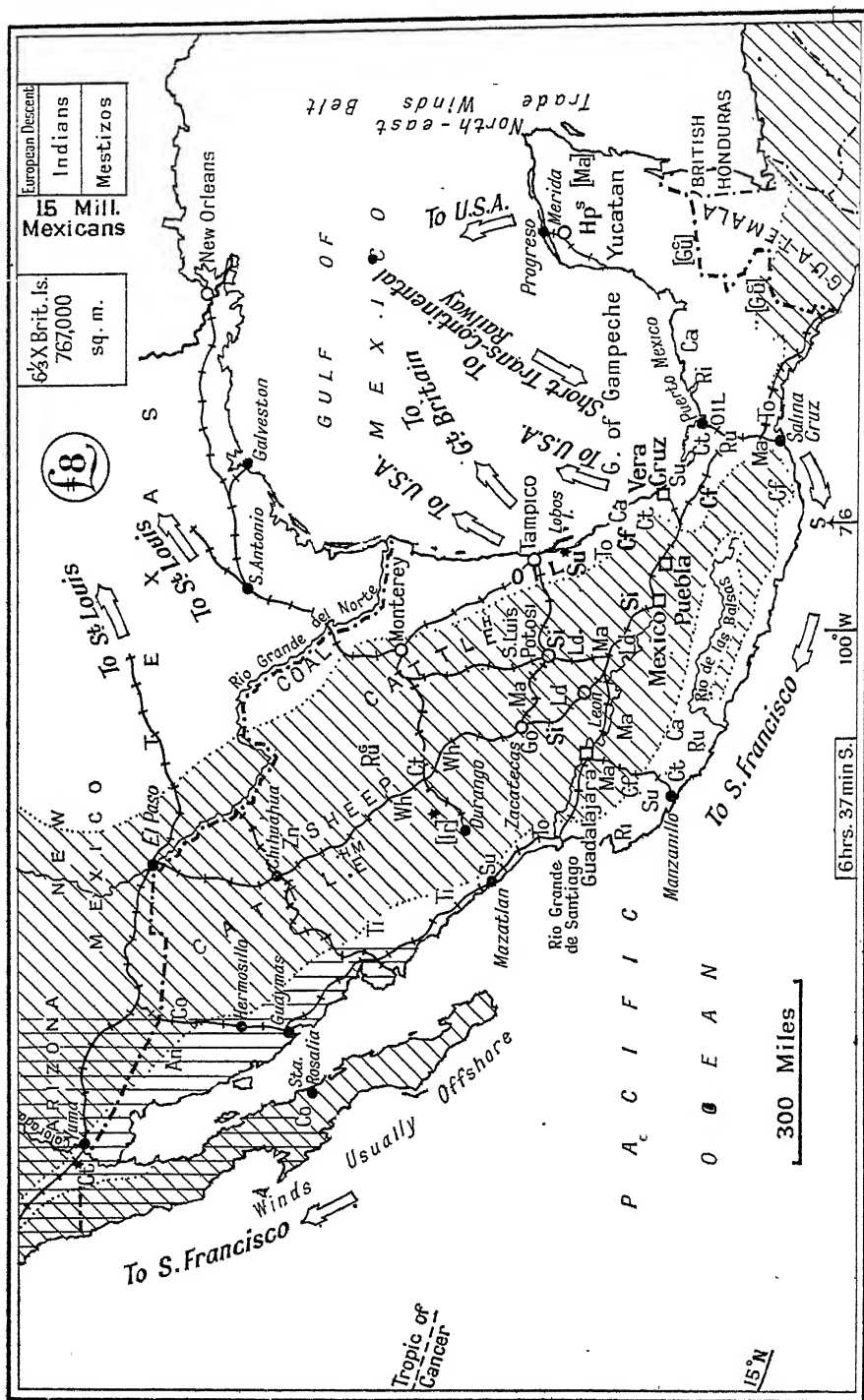


Fig. 60.—MEXICO.

Mexico.

north. In the dry regions the summer days are exceedingly hot, although the nights are cool.

The variety of climate conditions is reflected in the variety of vegetation. On the well-watered tropical coastal lowlands of the south, there are ever-green tropical forests, with valuable hardwoods. On the dry, yet hot, west coast, and in Yucatan (where the soil is limestone), there is chaparral or thornwood, the thorny algarroba being characteristic. On the upper mountain slopes there are temperate forests of oak, walnut, beech and similar trees, followed at still greater elevations by pine forests, like those of the Rockies. On the plateau there is a semi-desert vegetation of coarse grasses and small shrubs, such as sage brush, with varieties of succulent drought-resisting plants such as agaves, euphorbias, yuccas and cactus. This is modified by richer pastures and woods where water is supplied by rivers from the sierras. The Rio Grande del Norte flows south-eastwards from the Rockies, and forms the boundary between Mexico and the States. The Colorado empties itself into the Gulf of California, passing through a true desert region. The Rio Grande de Santiago, and the Rio de las Balsas, flowing from east to west, cut two deep and fertile valleys in the region of lofty mountains which forms the southern margin of the plateau.

Human and Economic Conditions.—Mexico is capable of producing almost every variety of vegetable product, *cacao*, *sugar*, *rubber*, *cotton* and *rice* being staples of the tropical lowlands or "hot country," with *coffee* on the mountain slopes, besides such tropical fruits as bananas and pineapples. The State of Vera Cruz is the most thoroughly developed coastal region. On the plateau, or "cold country," where irrigation is largely employed, **maize** is the staple crop, especially in the south, while **cotton** is produced on a considerable scale near the Nasas River; **wheat** becomes more important towards the north, and the *agave*, yielding the national drink, *pulque*, is a characteristic plant of the whole semi-arid plateau, upon which *alfalfa* is also very important as a forage crop. **Tobacco** is widely grown, and **beans** (*frijoles*) and **peas** are also very generally cultivated. Chick-peas (*garbanzo*) are a leading export of western Mexico, but as a rule, except for coffee and some sugar, all the crops mentioned are cultivated for local consumption, very primitive and inadequate methods being in vogue. Since the establishment by the United States of irrigation works on the Colorado River, a part of (Mexican) Lower California, close to the border, has also been brought under cultivation by this means. **Cotton** is here grown for export to the States, largely with Chinese and Japanese coolie labour. The total cotton production is about 150,000 bales.

In the peninsula of Yucatan, the limestone soil and light rainfall are suited to the cultivation of **sisal** (henequen), and Mexico is an important source of supply of sisal hemp, which is the most valuable vegetable substance exported. The output is about 150,000 tons, the principal use of the fibre being for binder twine manufactured in the United States.

Large semi-desert areas in Durango and Coahuila produce the guayule shrub from which *rubber* is prepared, and between 1910-15 a considerable industry sprang up, but the low price of rubber now ruling puts guayule out of the market.

The northern plateau region is in character similar to the high western plains and mountain basins of the United States, and is consequently a valuable ranching country, raising millions of **cattle** and **sheep**. Many of

Mexico.

the ranch owners are Americans, and the live stock finds a market in the States. The peasants as a rule keep *goats* and *pigs*. All classes of live-stock have greatly increased in numbers since 1920, the latest figures being 5½ million horned cattle, 1 million horses, 1½ million mules and donkeys (largely used for transport), 2½ million goats, 5½ million sheep, and nearly 3 million pigs.

Forest products are neglected, owing to defective means of communication, pack mules being the principal means of transport in many districts. *Dyewoods* and *fustic* are, however, shipped from the western forests.

Surpassing in importance both the animal and vegetable resources of Mexico (in so far as these are at present developed) is the *mineral* wealth of the Republic. The leading position was long held by **silver**, which is found very widely on the plateau region, especially in the south. The output is about 96 million oz.—worth £19 millions. **Gold** is also found in fair quantity with the silver (e.g. at El Oro), the output being worth 3–4 millions sterling. There are, besides, **lead**, **zinc** and **copper** mines of importance, the last named both in Lower California, where a French Company, at Sta. Rosalia, works valuable mines, and in the Sierra Madre, in the State of Sonora. Between 50,000 and 60,000 metric tons of copper (5 per cent. of the world's supply) are annually produced, and about 200,000 metric tons of lead. The famous **iron** mountain of Durango has been purchased by the United States Steel Corporation and supplies ore to the large works at Monterey. The production of metals is fairly steady (apart from interruptions due to civil war), but for a number of years Mexico leapt to the front rank of **oil**-producing countries, the output being exceeded only in the United States and in Russia. The wells are very favourably situated near the Gulf of Mexico, behind the ports of Tampico, Port Lobos and Tuxpan, and the equipment as regards pipe-lines, storage tanks and refineries is very complete. Over half a million barrels can be delivered to tidewater daily. A powerful wireless station on Lobos Island communicates with ships at sea. There is a secondary field in the Isthmus of Tehuantepec, behind Pto. Mexico. In 1921 the output reached over 193 million barrels, worth over £50 millions. This was nearly one-quarter the output of the United States. American and British capital developed the oilfields. The last few years has seen a rapid falling off to only 50 million barrels, an output exceeded by the wells of Venezuela. An invasion of wells by salt water contributed to this decline, but an oil-field is necessarily short-lived. **Coal** is mined in the north of the plateau, the annual output being ¾ million tons, while the resources are estimated at 100 million tons.

The *manufactures* of Mexico are of local importance only. Cheap cottons are turned out in considerable bulk from about 150 mills (Puebla, Orizaba, Mexico City) for the home market, sugar is refined, cigars and cigarettes are manufactured in great quantities, besides newsprint (from imported pulp), motor-tyres, chocolate, and some structural steel and rails (chiefly at Monterey). There are also large tanneries at Mexico City and Leon. Foreign capital is invested in many of these concerns, and foreigners (French, Germans, Spaniards) have a strong position in retail trade, while Syrians and Levantines are numerous as petty traders. The woollen blankets and cloaks in general use are woven by the Indians on hand-loom.

Trade Relations.—The railway system of Mexico extends over about 18,000 miles, and the network is closest in the south of the plateau

Molucca Islands.

region, where the densest population is to be found. The trunk lines running northwards link up with those of the States, there being easy gradients all the way, so that rapid through connection is maintained with New Orleans, St. Louis and Chicago. A railway also runs from Arizona down to the west coast, and along the coastal plain to Mazatlan, but the lofty Sierra Madre isolates the western region from the rest of the country, the only direct route between the two coasts being the Tehuantepec Railway, in the south. This railway runs from Puerto Mexico to Satina Cruz, and is in competition with the Panama Canal. Vera Cruz and Tampico, the two chief seaports, are the termini of lines which climb the escarpment to the plateau region. Yucatan has an isolated network focusing on Progreso, whence the sole money crop, sisal, is exported. Vera Cruz is available for vessels drawing up to 28 ft. and Tampico for vessels drawing up to 22 ft. Both have good wharfage, but at Progreso, although there is deep-water anchorage, goods must be lightered. Mazatlan, the chief port on the west coast, is very poorly equipped, although recently some slight improvements have been made.

The rail and shipping facilities ensure that the bulk of Mexican trade (over 70 per cent.) is with the United States, that country taking a very large proportion of the oil available for export (33 million barrels in 1928), besides metals, sisal, sugar and coffee. A part of these products are re-exported. British imports from Mexico, according to the Board of Trade returns, amounted in 1928 to £3 millions, and consisted almost entirely of crude and refined oils. The return trade was nearly £3 millions, cottons accounting for about half that total. The bulk of the textiles required, besides hardware, machinery, metal goods, chemicals, vehicles, groceries, dry goods and fancy goods, are supplied by the United States. There is a small direct trade with Spain, Cuba and the leading Central American and South American Republics. British goods could be pushed by well-equipped travellers and agents. Trade with Germany now exceeds that with Britain, while that with France is about half as great.

General Information.—The unit of currency is the Mexican dollar or peso (weighing 75 grammes of pure gold), which is equal to one-half of the United States dollar, and therefore normally worth 2s. 0½d. The National Bank of Mexico has the sole right to issue notes. The metric system is legally in use, but old Spanish weights and measures, e.g. the *libra* (1·014 lb.) are also commonly employed. The British banking establishments are the Bank of Montreal, and the Anglo-South American Bank. The great majority of Mexicans are Roman Catholics, but there is no longer a State religion. The language spoken is Spanish. Mails reach Mexico City via U.S.A. in 11–13 days. There is a British Consul-General at Mexico City.

MIQUELON & ST. PIERRE

See *St. Pierre and Miquelon*, p. 389.

MOLUCCA ISLANDS

See *Dutch East Indies*, p. 152.

Morocco.

MONGOLIA

See **China**, p. 115.

MONTENEGRO

See **Yugoslavia**, p. 463.

MORAVIA

See **Czechoslovakia**, p. 143.

MOROCCO

Area and Population.—The Sultanate of Morocco is, since 1912, a French Protectorate, and the Sultan must follow in all matters the advice of the French Resident-General. In the north there is a Spanish zone, in which are situated the Spanish possessions of Ceuta and Melilla, and the international territory of Tangier and district. The area of Morocco is about 218,500 square miles (nearly four times the size of England and Wales), and the estimated population is $5\frac{1}{2}$ millions, of whom 4 millions are in the French Protectorate. The natives include Berbers, Tuaregs and Arabs, besides large numbers of Jews and Negroes. There are about 100,000 Europeans, of whom half are French, one-fifth are Spanish, and about a thousand are British. The chief native cities of Morocco are Marrakesh, the ancient southern capital, with nearly 150,000 inhabitants, and Fez, one of the northern capitals with 80,000 people. The Sultan usually resides at Rabat, with under 40,000 people. French influence has developed from the port of Casablanca as centre, and here there are now over 100,000 people, including the largest European community, nearly 35,000. In the Spanish zone, Tangier (permanently neutralized and demilitarized) has 60,000 inhabitants, of whom one-sixth are Europeans, while Tetuan, the seat of the Spanish Administration, has 24,000.

Large numbers of the natives are nomad tribesmen, under the effective control only of the local Sheikh, and the safety of life and property in the interior is by no means assured. The country is, however, extremely rich in natural resources, and as the rail and roadways extend, larger areas are being thrown open to international commerce. The foreign trade exceeds £20 millions, but of this 75 per cent. is import trade, including material for development works, besides provisions and necessities for the French officials and colonists, and the army of occupation.

Position, Climate and General Physical Conditions. — Morocco lies in the north-west of Africa, and has both a Mediterranean and an Atlantic seaboard. Situated between latitudes 29° and 36° N, it has the typical South Mediterranean climate, with exceedingly hot dry summers and moist warm winters. The rainfall diminishes towards the east and south, and is nowhere superabundant. In the Spanish zone,

Morocco.

Of animal products, *eggs* are at present the most valuable, since they are readily collected, but the country is rich in horned *cattle*, the number of which is estimated at nearly 2 million, while on the uplands, and in the dry south there are 9 million *sheep*, and 3 million *goats*. Consequently there is a large export of wool, hides and skins, and a growing one of live meat.

The **cork**-oak forests of the littoral are being worked, and there is some fine *cedar* at an elevation of about 4,000 ft. in the Middle Atlas. Palmetto fibre and tanning-wood are exported.

The mineral wealth of Morocco is very considerable, including phosphates, iron, copper, lead and zinc, which are already extensively mined in Algeria and Tunis, where the build of the country is of a similar character. A branch line from the Casablanca-Marrakesh railway has been constructed to the **phosphate** beds of Wad Zem in the south-west, and the total output has now reached 1½ million tons annually. Over half a million tons of iron ore are exported from the Melilla district and the Spanish Zone, while another highly mineralized district lies in south-east Morocco, not far from Figig, on the Algerian frontier. Here manganese, and silver-lead-zinc ores are already exploited, since there is access by the Colomb-Bechar railway, and a coal-field is reported in the same region.

Trade Relations.—The natural Atlantic and European entry into Morocco is through Tangier, at the western end of the Strait of Gibraltar, while Melilla is the most convenient point of approach from France and the Mediterranean region. The uncertainty as to the political status of Tangier, and Spanish apathy in Melilla, however, postponed the necessary port improvements, and both roads and railways into the interior were wanting. The French, on the other hand, constructed public highways and railways, so that Casablanca, on which these converge, became the chief gateway of trade, and here extensive harbour improvements have been completed. The Algerian railway has also been continued westward to Fez, where it meets the Casablanca line, and now that the sections to Tangier and to Marrakesh are completed all the chief towns are linked up. Two-thirds of the imports are from France or Algeria, although these include, of course, re-exports from those countries. Britain (with Gibraltar) has the second place, supplying about 12 per cent. of the total, while the United States is a close competitor. About half the exports go to France and Algeria, about one-sixth to Spain, and one-tenth to the British Isles. The commodity in largest demand is sugar, which can be supplied from the refineries of France and the United States; next in importance come cotton goods, of which a considerable proportion are of British origin, the same country also supplying machinery and hardware, which stand high on the list. Tea is valued at £800,000 and comes indirectly from British India and Shanghai, and other considerable items are soap and candles, wine, spirits and beer, vegetable oils, groceries and provisions, coffee and tobacco.

The market for iron and steel goods, including galvanized sheets, plates, bars, wire, rails, rolling stock, locomotives, is obviously an expanding one, and one in which Great Britain has already a good footing, but rivalry must be looked for from the United States (which increased her Moroccan trade from mere tens to hundreds of thousands of pounds during the War), from Belgium and to a less extent from Germany. Improved methods of agriculture and European colonization must create a demand for agricultural

Nauru or Pleasant Island.

implements and machinery, while the improvements effected in the telephone and telegraph services, and the modernization of the towns opens a market for electrical apparatus and accessories. The good roads, too, mean increased motor traffic. A large expenditure on roads and railways is now promised in the Spanish zone.

General Information.—There is a State Bank of Morocco. Spanish and French coins are used in the Spanish zone, French coins in the French zone. The Moorish (Hassani) currency was officially withdrawn in March, 1920, but continues to circulate at a value of about 50 Hassani pesetas to the £ sterling. The produce of the country is sold by the kantar of 168 lb., imported goods are sold by the kantar of 112 lb. Numerous other weights and measures are current, but the official metric system is gaining ground. The Bank of British West Africa and the State Bank of Morocco have branches in Catablanca and elsewhere. There are daily air-services to Spain and France, and a weekly service from Casablanca to Dakar in French West Africa. London mails reach Tangier in 3½ days, or by air in 2 days. There are Consul-Generals at Rabat and Tangier, Consuls at Tangier, Tetuan and Casablanca, besides several Vice-Consuls.

MOZAMBIQUE

See **Portuguese East Africa**, p. 366.

NATAL

See **British South Africa**, p. 78.

NAURU OR PLEASANT ISLAND

Position and General Information.—Nauru, formerly one of the German Marshall Islands, has been assigned to the British Empire as mandatory. It is a small coral island covering only a few square miles, lying just south of the Equator, and in longitude 167° E., nearly 200 miles from Ocean Island, one of the Gilbert and Ellice Group. Like the latter, its sole commercial export is rock **phosphate**, the two islands being exploited by the British Phosphate Commission, employing imported coolie labour. The population is 2,500. Light railways have been built, and jetties for the rapid loading of the fertilizer, which is marketed in New Zealand and Australia. There are well-equipped residential quarters for the different classes of employees, and a wireless station affords communication with the outside world. Practically all the necessities of life are imported, local produce being limited to copra, fruit, vegetables and fish. The output of phosphates is from 250,000 to 300,000 tons annually. There is an important wireless station at Nauru.

*New Caledonia and Dependencies.***NEPAL**

Area, Population and General Conditions.—Nepal is an independent Kingdom in the Himalayas with an area of about 54,000 square miles (rather larger than England) and a population estimated at $5\frac{1}{2}$ millions. The Gurkhas, famous for their fighting qualities, are the dominant race, since they conquered the country over two centuries ago. The aboriginal inhabitants are, however, of Mongol stock, and allied to the Tibetans. The trade is almost entirely with British India, and the imports and exports are valued at about £5 millions sterling, or nearly £1 per head. Nepal lies to the north of the plain of the Ganges, and includes a section of the main mass and southern slopes of the Himalayas (with Mount Everest) together with the foothills of these mountains. The country is well watered and forested, and on the hill slopes and valleys a wide range of crops can be grown, since the temperature varies from tropical heat to extreme cold according to altitude. Hence cereals, drugs, oil-seeds and timber are sent southwards in exchange for sugar, textiles, hardware, petroleum and metal goods. A British Envoy resides at the capital, Katmandu, which has about 80,000 inhabitants, but relations with the outside world are not desired by the Nepalese. Recently, however, their isolation has been modified by the linking of Katmandu Valley to India by means of a rope-way (for goods) and a short length of narrow-gauge railway.

NETHERLANDS, THE

See **Holland**, p. 245.

NEW BRUNSWICK

See **Canada**, p. 95.

NEW CALEDONIA AND DEPENDENCIES

Area and Population.—The French Colony of New Caledonia is administered by a Governor. It has an area of 7,650 square miles, and a population of about 50,000. The dependencies are the neighbouring Loyalty Islands, Isle of Pines and Huon Islands (barren), and the Wallis Islands, Futuna and Alofi to the north-east of Fiji, about 1,000 miles away. Their total area is about 900 square miles, and population 7,000. About 60 per cent. of the total population are Melanesians and Polynesians; there are between two and three thousand convicts at the penal station on New Caledonia, the remainder are colonists. Noumea, the principal town and port, on the south-west coast of New Caledonia, has 10,000 inhabitants. It is a station of the French fleet. The total trade averages £2 millions, or £40 a head.

Position and General Information.—New Caledonia lies in the South-Pacific Ocean, just within the tropics (between 20° S. and $22\frac{1}{2}^{\circ}$ S., and between 164° E. and 167° E.), about 700 miles off the coast

Newfoundland and Labrador.

of Queensland, Australia. It is a long, narrow mountainous island, aligned from north-west to south-east, clothed with tropical forest, mountain pasture and mountain forest, the rainfall being fairly abundant and the temperature uniform. A great variety of tropical products—bananas, cassava, coco-nuts, coffee, maize, tobacco—are grown for local use, and of these small quantities of *coffee* and *copra* are also exported, besides a little cotton. There are also 200,000 *cattle*. The chief wealth of the island is, however, in minerals, which are abundant in the mountains, and are mined in accessible districts round the coast. **Nickel** ore (about 30,000 tons) and **chrome** ore (about 25,000 tons annually) are the most important, the nickel ores being locally smelted, and a little cobalt, lead and copper are also mined, besides *phosphates*. The smaller islands produce *copra*. There are 90 miles of railway in New Caledonia, and harbour improvements at Noumea are in progress. There is irregular steamship connection with France and regular sailings from Sydney (N.S.W.), and hence the trade is divided between these countries. Flour, rice, provisions, cottons, coal, hardware, and French wines are imported. The Banque de l'Indo-China does business in the country.

NEWFOUNDLAND AND LABRADOR

Area and Population.—Newfoundland is a British self-governing Colony, to which Labrador is attached as a Dependency. The area of Newfoundland is nearly 43,000 square miles (about $1\frac{1}{2}$ times the size of Ireland), and it has a population of rather over $\frac{1}{4}$ million, i.e. about six persons to the square mile. The area of Labrador is, since the settlement of the Boundary Dispute, 120,000 square miles (the size of Britain), and the population only 4,000, chiefly Eskimos and a few missionaries and fishermen. The total trade of Newfoundland has risen in value from £6 millions before the War to an average of £12 millions, or £48 per head of population, with every prospect of a further increase, and the prosperity of the Colony is indicated by the normal excess of revenue over expenditure. The only town of importance is St. John's, the capital and chief seaport, with 40,000 inhabitants.

Position and General Physical Conditions.—The island of Newfoundland is situated at the mouth of the St. Lawrence estuary between latitudes 46° and 52° N., i.e. the greater part of it lies farther south than England. It is separated from Cape Breton Island (Nova Scotia) by Cabot Strait, and from Labrador by the much narrower Belle Isle Strait, which is frozen in winter. Labrador forms a wide triangle of territory along the north-east coast of Canada. It stretches from 51° N. to nearly 61° N., and is washed by the cold Labrador current, so that it is a bleak and barren land, unimportant save for the shore fisheries and for reserves of pulp-wood inland. Newfoundland has a very irregular coastline, and it is the south-eastern bays and peninsulas that have the mildest climate, so that here the bulk of the population is found. The Avalon peninsula, on which St. John's stands, has a less severe winter than Nova Scotia farther south, and the port of St. John's remains open. Generally speaking, the winter is cold, with heavy snow, while the summers are cool

Newfoundland and Labrador.

and damp, resembling those of the north-west Highlands of Scotland. Consequently there is much marsh, bog and moorland in Newfoundland, besides an abundance of lakes and rivers. Parts of the country are heavily timbered, but a great deal of the forest land is thin and poor. Structurally, Newfoundland forms the fringe of the worn-down mountain system (the

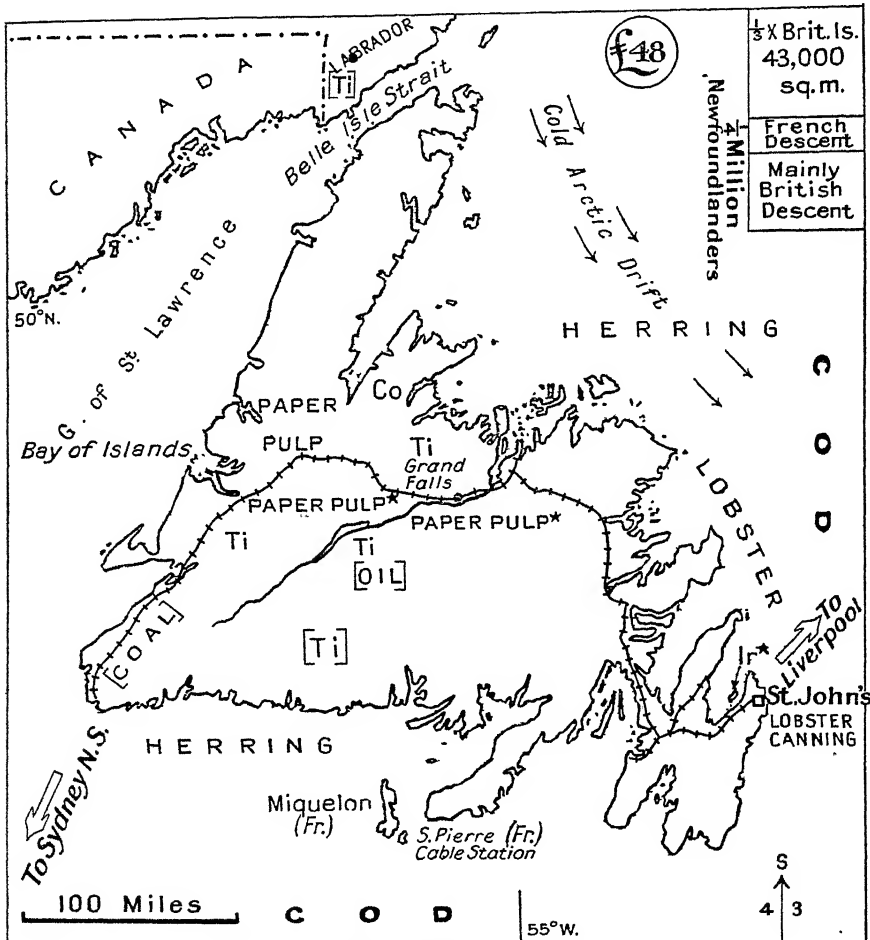


FIG. 62.—NEWFOUNDLAND.

Appalachians) that can be traced along the whole eastern belt of North America; hence the irregularity both of outline and of surface, and the similarity of mineral deposits. To the Ice Age are due the heavy deposits of boulder clay and the numerous waterfalls which are characteristic features. Labrador is largely a barren waste, but some areas are timbered.

Human and Economic Conditions.—Barely one-eighth of the inhabitants of Newfoundland are farmers, since the climate and soil

Newfoundland and Labrador.

conditions only allow of the growth of such crops as hay, oats, potatoes and turnips. Sheep are reared (100,000) and sufficient cattle and horses for local needs. The chief occupation is *fishing*, **dried cod** being the leading commercial product of Newfoundland, and at one time representing more than half the total value of the exports (£6 millions in 1926-27). **Cod liver oil** is also extracted, but to a much less extent than during the period of high prices. The cod are obtained partly from the famous Grand Banks which lie to the south-east of Newfoundland, and partly from the in-shore fisheries. Next in importance to cod are the *herring* fisheries, which fluctuate greatly in value, and there is also a *seal* fishery, and a valuable *lobster* canning industry. Owing to over-fishing, a close season for lobsters was enacted from 1920-28.

The pine forests in the north give rise to a lumbering and saw-milling industry, the timber being consumed locally for dwellings, boats and ships. Of greater importance is the **paper-pulp** industry, for which there are both power and raw material. There are large mills at Grand Falls and Bishop's Falls, Comer Brook, Lomond in Bonne Bay, and one at Bonainsta Bay. The output of pulp and paper has risen steadily, and now ranks in value with that of dried cod.

The principal *mining* industry is of **iron ore**, of which there are very large supplies. The chief beds are on Bell Island in Conception Bay, north-west of St. John's, the output being about $1\frac{1}{2}$ million tons of ore. There is also a **copper** mining industry, capable of extension, but the competition of large mines elsewhere has led to its decline. The deposits of **coal** which have been discovered near the railway in the west of the island are expected to supply local needs, although at present coal is imported. A *lead-zinc* mine near Red-Indian Lake has commenced production, the concentrates being shipped to the States.

Trade Relations.—The main railway runs from St. John's northward, then westward and south-westward to Port aux Basques, a point opposite Sydney (Cape Breton Island). A number of branch lines serve the chief farming and fishing settlements of the south-east, and communications are also maintained by a fleet of coasting steamers.

In spite of the increased imports and exports, the value of the trade with the United Kingdom has decreased, while there has been a great increase in trade with both the United States and Canada, a natural consequence of propinquity and complementary needs. Except for West Indian molasses and Indian tea, the imports of Newfoundland are almost entirely from the three countries named. They include such provisions as flour (the largest single item) and salt pork, besides manufactured goods (textiles, hardware, machinery), coal and oil. The export trade is more widely distributed, the dried cod finding a ready market in Catholic countries, including South America, parts of the West Indies, and the Western Mediterranean. Paper pulp and paper come to England, while the fish oils are chiefly marketed in Canada and the States. If cold storage were available, fresh fish could readily be shipped from Newfoundland to the United Kingdom in almost unlimited quantities.

General Information.—The unit of currency is the gold dollar equivalent to 4s. $1\frac{1}{2}$ d. of British money. The chief banking establishments at St. John's are the Royal Bank of Canada, the Bank of Nova Scotia

New Guinea (Papua and former German New Guinea).

and the Bank of Montreal. Nearly a third of the population are of French descent and are Roman Catholics. The weight of fish is usually given in *quintals*, the quintal being one-tenth of a metric ton of 2,205 lb. Mails reach St. John's from Liverpool in 9 days, and via Canada in a fortnight. There is cable connection with the British Isles and Canada. There is an Imperial Trade Correspondent at St. John's.

NEW GUINEA (PAPUA AND FORMER GERMAN NEW GUINEA)

Area and Population.—Papua (formerly British New Guinea) is a dependency of Australia, and is administered by a Lieutenant-Governor. With it may be included the adjoining Kaiser Wilhelm Land (part of German New Guinea), for which Australia has a mandate. The total area of the two countries is about 160,000 square miles (five times the area of Ireland), and a conservative estimate puts the population at 500,000, but the higher figure of $\frac{3}{4}$ million has also been suggested. There are besides over three thousand Europeans, the chief settlement being Port Moresby, opposite the Australian coast. Madang (formerly Friedrich Wilhelm's Hafen) is the chief port in the north.

The external trade is at present worth barely £2½ millions, but the development of the country has hardly begun. The Papuans make good plantation labourers, for they are racially akin to the African negroes, and are more vigorous than the Polynesian peoples: only about 10 per cent., however, are in contact with the Europeans, either as producers or labourers.

Position, Climate and General Physical Conditions.

—The territory under British control is that part of the great island of New Guinea which lies east of longitude 141° E., the neighbouring area being Dutch. It extends from within 3° to 11° south of the Equator, and is separated by Torres Strait, 100 miles wide, from Australia. The northerly regions have an equatorial climate, with uniform heat and abundant rain nearly all the year. The south has, however, a comparatively dry season in the winter months, when the south-east wind blows, while it has heavy rains during the north-west monsoon. A small sheltered section of the south coast has only a moderate rainfall even in summer. Hence, whereas in the north and on the west mountain slopes there is a dense rain-forest, difficult to penetrate, in the south there are lighter woodlands, passing in places into open grassy savannahs. On the high plateaus of the interior there are also patches of savannah.

The coastal plains are narrow, and most of the country is elevated, save for the great plain of the Fly River in the south-west. This river, like the Sepik and Ramu which flow to the north coast, is suitable for floating timber, which is, of course, abundant. The mountain ranges have a N.N.W. to S.S.E. trend, giving the territory its long peninsular extension eastwards. Mangrove swamps fringe the coast.

Human and Economic Conditions.—The natives grow yams, taro, *sugar*, *sago*, *bananas* and *coco-nuts* for their own use, and the last four might readily be produced on a commercial scale. The region behind Madang, the chief northern settlement, was planted by the

New Guinea (Papua and former German New Guinea).

Germans with *rubber*, *cacao* and *coco-nuts*, which are come into bearing, the last named being by far the most important. To the west of Port Moresby, near the Fly River, where it is very rainy, there are also some 8,000 acres under rubber, but in general the drier southern climate makes the British planters prefer the coco-nut (50,000 acres), while **sisal hemp** has been found to grow admirably. Large plantations were laid out, and decorticating machinery set up, and this promised to become a leading product, especially as the demands it makes for labour are not great. Owing, however, to increase of production elsewhere, and fall of prices, the output is now almost negligible. Sugar, banana and pineapple plantations would all do well if capital and labour were forthcoming. It is sug-

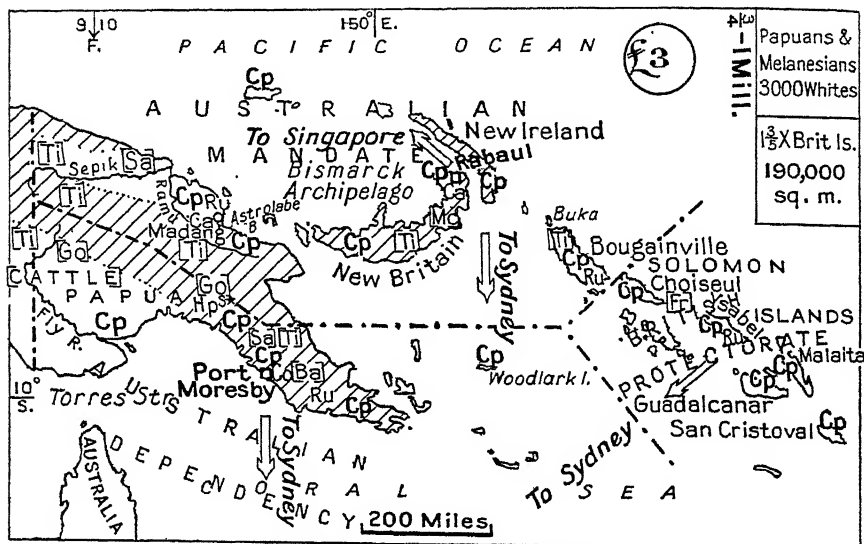


FIG. 63.—BRITISH NEW GUINEA.

gested also that the abundant nipa palm would supply raw material for power alcohol. At present land communications are lacking, and communication is chiefly by launches, cutters and small steamers, so that settlement is confined to the coasts and rivers. **Copra** therefore remains the staple product.

The savannahs afford natural pasture for *cattle*, but at present there are only 1,300 of these animals in the country. Among valuable timbers, *ebony*, *sandal-wood* and *rattans* may be mentioned.

The territory is rich in *minerals*, of which *gold* and *copper* are already exploited on a small scale. Much capital has been spent on developing a copper-field near Port Moresby, but the low price of copper has checked production. **Oil** has been discovered, and it is possibly abundant here as in so many other parts of the East Indies, but so far the results of boring have been disappointing.

General Information.—Imports come chiefly from Australia, Sydney serving as an entrepôt from which drapery, hardware and food-

New Zealand.

stuffs are distributed. Copra is bought by Pacific traders, and its final destination is not declared, but it probably goes to London and Hamburg via Singapore, and to the United States. The Bank of New South Wales and the Commonwealth Bank of Australia have branches at Rabaul. The currency and legal tender in Papua are as in Australia. This territory is at present subsidized by the Australian Government. There are wireless stations at Port Moresby and Samarai (a port in the extreme south-east), and a cable runs from Astrolabe Bay to Yap, the important Japanese cable station. There is an Imperial Trade Correspondent at Rabaul in the neighbouring Bismarck Archipelago.

NEW HEBRIDES

Area and Population.—The New Hebrides are jointly administered by the British and French officials, there being two Residents. The area of the islands (which include Espiritu Santo, Mallicolo, Epi, Sandwich Erromanga, and others) is 5,700 square miles, and the population about 60,000, of whom nine hundred are Europeans, chiefly French, the rest Kanakas (Melanesians and Polynesians) and Tonkinese. The total trade is valued at about £ $\frac{3}{4}$ million.

Position and General Information.—The New Hebrides prolong the line of the Bismarck and Solomon Islands, and lie about 300 miles south-east of the latter, and to the north of New Caledonia. They stretch between latitudes 15° S. and 20° S., and are therefore tropical, resembling in climate the Fiji Islands. They are mountainous in character, and clothed with tropical forest and jungle. Besides the various fruits and food-stuffs grown for local use, there are plantations under French cultivation of *coffee*, *cacao* and *cotton*, these products being exported on a small scale, but *copra*, from the numerous coco-nut groves, is the chief export. A little *timber* is worked. There is fairly frequent steamer connection with the neighbouring Pacific islands and with Sydney, N.S.W., to which the produce is mainly shipped, and which sends in return provisions, clothing, hardware, and other necessities for the colonists.

NEW SOUTH WALES

See *Australia*, p. 28.

NEW ZEALAND

Area and Population.—New Zealand consists of three main islands, known as North, South and Stewart Islands, and some small groups (Chatham, Auckland, Campbell, Savage, Antipodes, Bounty and Kermadec Islands) in the neighbouring ocean, which are of no commercial importance. The *Cook Islands* and other South Pacific Islands were annexed in 1901, and cover an area of 280 square miles, with a population of 14,000. New Zealand also administers *Samoa*, formerly a German possession, and *Ross*

New Zealand.

seriously diminishing. Beech trees (known locally as birch) and tree-ferns are also very abundant. A State Forest Service conserves and develops the timber supplies.

Human and Economic Conditions.—The interests of New Zealand are overwhelmingly pastoral, and of the cultivated land 90 per cent. is under English sown grasses, while there is also 13 million acres of native "tussock" grasses available on occupied holdings. The total grazing area is thus over 30 million acres, and while the dry summer weather in North Island, and the occasional raw winter weather in South Island make it desirable to supplement the grass with fodder, there is no question of stall feeding the stock as in Europe and the British Isles. The result is a freedom from disease and a richness of yield and quality of stock products that are important assets to the New Zealand farmer.

The arable land (1.7 million acres) is naturally largely devoted to fodder crops for fattening purposes, and includes nearly half a million acres under *turnips* and mangolds, 300,000–400,000 acres under *oats*, besides about half a million acres devoted to green crops, and grasses and clovers sown for *hay*. The New Zealand climate, and especially that of the dry Canterbury Plains, is excellent for **wheat**, and fifty years ago this was a dominating crop, but the prosperity of the animal industries has led to a diminution of the area under wheat, for which a maximum of $\frac{1}{4}$ million acres is now used, giving an output of about 10 million bushels.

The pasturage is more abundant and richer in North Island than in South, and consequently the former has 54 per cent. ($14\frac{1}{2}$ millions) of the sheep, and 80 per cent. ($21\frac{1}{2}$ millions) of the cattle of the Dominion, while there are $12\frac{1}{2}$ million sheep and $\frac{1}{2}$ million cattle in South Island. The drier pastures of South Island are suited to the fine-wooled merino breeds of **sheep**, while the Romney breed is found to thrive in the moister regions of North Island. Southdowns are largely bred to supply fat lambs for slaughtering, but the great majority of the flocks are cross-breds. The number of sheep varies with market conditions, and the low wool prices of 1921 led to a reduction of the flocks to 23 million, against $26\frac{1}{2}$ million in 1918 and 27 million in 1928.

The pure-bred **cattle** are generally Jerseys, Ayrshires and Friesians, and the proportion of dairy herds is increasing, although it is still less than half the total, for nearly half a million beef cattle are slaughtered annually, one-fourth of the carcasses being exported. Shorthorn herds are among the best beef-cattle. The average yearly slaughter of sheep for food purposes is $3\frac{1}{2}$ millions, and of lambs over 5 millions; 73 per cent. of this total is exported, giving $2\frac{1}{2}$ million cwt. of frozen meat. To this export must be added $\frac{1}{2}$ to $\frac{3}{4}$ million cwt. of beef, representing the 25 to 30 per cent. of this commodity not retained for home consumption. The frozen meat trade has expanded even more rapidly than the wool trade, the weight exported having more than doubled since 1900, and the value (including preserved meat) reaching over £9 millions.

The **wool** exported has lately averaged over 200 million lb., worth over £12 millions, while 7 million lb. are consumed in the local mills. Thus wool until recently headed the list of exports, and was followed by frozen meat, but they are now surpassed by the products of the *dairying industry*, the *butter* and *cheese* export being valued at £16 millions. The dairy farmers have formed themselves into co-operative societies, and own the cheese

New Zealand.

and butter factories, purchasing their individual requirements also through their societies. The introduction of milking machinery has enabled them to overcome the great difficulty of labour shortage. The Taranaki district (west of North Island) takes the lead for cheese, and the Auckland district for butter, while Wellington has the second place for cheese and the third for butter. These three districts naturally have also the most pigs, of which, however, there are only $\frac{1}{2}$ million in the Dominion, the produce sufficing for home consumption only. With so many animals slaughtered annually, hides, skins, sausage casings and tallow make up a valuable export, worth £5 millions.

Mining has greatly declined as a source of wealth in New Zealand, although there is **gold** mined in both islands. The most important sources are the quartz lodes in the mountain range running between the Gulf of Hauraki and the Bay of Plenty. The refining of the gold from these mines also yields silver, but the export of gold has fallen from an average of £2 millions yearly between 1901 and 1910 to little more than £1 million in the years 1916–1919, and to £ $\frac{1}{2}$ million in 1927.

The **coal** output is more valuable than the gold, and averages 2 $\frac{1}{4}$ million tons yearly, worth £2 $\frac{1}{4}$ millions, of which a little is exported for bunkering, leaving $\frac{1}{2}$ million tons for the local consumption to be made up by import. The chief mines are on the west coast of South Island, behind the Southern Alps, their outlets being Westport and Greymouth. Third in importance of yield are the mines of Waikato to the south of Auckland, and there are smaller mines in Southlands, Otago and North Auckland. A blast furnace for smelting local *iron ore* has been erected in the north of South Island: imported coke is used.

Kauri gum, which for statistical purposes ranks as a mineral, is a fossil resin used in the manufacture of varnish and linoleum. It occurs immediately below the surface in the Auckland peninsula, and is produced to the value of £250,000 to £350,000 annually. Recently the distillation of an oil, resembling petrol, from peat which is rich in the gum has proved a most profitable industry. So far, paying wells of true petroleum have not been discovered, although the Government is assisting private drilling operations, and oil has been found in Taranaki and other districts.

A vegetable product of value in external trade is the **New Zealand flax** (*Phormium tenax*), which grows wild over wide areas, especially in Wellington district, and yields a strong fibre for rope-making, besides tow. In 1917 the fibre and tow exported were valued at £1 $\frac{1}{4}$ millions, but the average value fell in 1921–22 to only £ $\frac{1}{4}$ million, and is now about £ $\frac{1}{2}$ million.

Timber is exported to a value of about £ $\frac{1}{2}$ million, chiefly to Australia, while the import of sawn timber (chiefly Oregon pine and Australian hardwood) is valued at a somewhat higher figure.

The *industries* of New Zealand are those immediately derived from her animal products—freezing establishments, butter and cheese factories, tanneries, flour-mills, woollen mills, soap and candle factories. There are also a large number of saw-mills, producing sash-frames, skirtings, floor-boards and boxes from local timber. Only 82,000 persons, however, are employed in industry, and the scarcity of labour retards development. The woollen mills, for example, which turn out tweeds, flannels and blankets, cannot supply even the home market. Auckland and Wellington are the chief industrial centres.

The abundance of *water-power*, however, is favourable to industry, and the establishment of power stations is going rapidly ahead. The largest plant is that supplying Christchurch and district (the Lake Coleridge works), while the Dunedin installation (Waipori River works) is also very important. A third large generating station is at Horahora on Waikato River. There is also much power developed in the rich dairying districts of North Island. The lakes and waterfalls of the southern section of the Southern Alps are remote from any developed region, and the resemblance to Scandinavia suggests development on similar lines, i.e. the establishment of electro-chemical and electro-metallurgic industries. Phosphates, forming raw material for a fertilizer industry, are abundant in the Pacific islands, while Australia has an enormous wealth of metalliferous ores.

Trade Relations.—The four largest cities of the Dominion are seaports, and of these, Wellington, the capital (130,000 inhabitants) is the most centrally placed. Auckland, the original capital and largest city (207,000 inhabitants), with its harbour opening to the Pacific, has the most attractive situation and climate. Lyttelton, the port of Christchurch (123,000 inhabitants), and Dunedin (84,000 inhabitants), are the outlets of the Canterbury plains. Besides these four, there are only nine towns with over 15,000 inhabitants, including Wanganui, Napier and Gisborne, the respective centres of three grazing and dairying districts in North Island, Invercargill, the port of the Southlands plains, Palmerston and Timaru, two townships of the Canterbury plains.

Two-thirds of the imports come either to Wellington or to Auckland, the two cities competing for the first place; of the remainder 14 per cent. comes to Lyttelton, and 10 per cent. to Dunedin. These larger ports are fed by coastal shipping, especially from Napier, Nelson and Otago.

Whereas four-fifths of the produce of New Zealand formerly came to the United Kingdom, the proportion is now only three-fourths, and if re-exports from London are deducted, less than two-thirds of New Zealand produce is consumed in Britain, but this is a high proportion. Australia takes $7\frac{1}{2}$ per cent., including butter, timber and gold; Canada takes $3\frac{1}{2}$ per cent., chiefly butter; U.S.A. takes about 5 per cent., France and Germany each 2 per cent. The re-export from London is mainly of wool and phormium fibre.

Of the imports, wearing apparel and textiles form the largest class—about £6 per head of population—while iron and steel, machinery, agricultural implements, tools, railway plant, hardware and other metal goods, make up the second largest total. Sugar and tea cost well over £1½ millions, intoxicating liquors and tobacco about £2½ million, while motor-cars and cycles have recently passed the 3 million figure, as has mineral oil, and the group comprising paper, printed books and stationery is valued at nearly £2 millions.

The imports come from a wider field than that to which the exports are consigned. Thus, the supply of sugar—about $2\frac{1}{2}$ lb. per head per week—which costs nearly £1 million, comes from the Fiji Islands, Dutch Indies and Cuba, while tea comes from Ceylon; oil and automobiles are supplied by the United States, rice, bags, sacks, hessians and jute goods generally by India, while the Australian trade includes manufactures from the Commonwealth, timber, flour, fruit, tobacco and wine, besides re-exports from Europe. The imports from the United Kingdom—mainly manufactured

Nicaragua.

goods—amounted in a normal year to nearly 50 per cent. of the total, which was reduced by 10 per cent. during the War, during which period the United States' share rose to 20 per cent. Germany's 3 per cent. of pre-war trade is returning, and of this the principal items are apparel, pianos, fancy goods, toys, glassware and chemical manures; textiles and iron goods are less important, British makes being preferred. Japan's trade once reached 4 per cent., during the War, this including silks, cottons and fancy goods but it fell to under 2 per cent. by 1923.

General Information.—The customs tariffs of New Zealand are protective, but give preference to British goods. The railways (except for 117 miles private) are State-owned, have a uniform 3 ft. 6 in. gauge, and a total length of over 3,000 miles. The Otira Tunnel which links up the west coast with Christchurch was completed in 1923. A Pacific cable from Auckland to Vancouver, British Columbia, facilitates rapid communication with America and Europe, and Auckland has also cable-communication with Sydney. London mails reach Wellington in 31–34 days via N. America, in 36–40 days via Panama, and in 38–40 days via Suez. Sydney mails arrive in four days. There are six banks of issue trading in New Zealand (of which four are Australian), the Bank of New Zealand having branches in London, Australia, Fiji and Samoa. There is an Imperial Trade Commissioner in Wellington, and the High Commissioner answers trade enquiries in London. New Zealand is a member of the League of Nations.

NICARAGUA

Area and Population.—The Republic of Nicaragua has an area of 52,000 square miles (larger than England) and a population of nearly $\frac{3}{4}$ million. Over half a million of these are found within 50 miles of the Pacific coast, where the principal towns are situated, namely Managua (32,000 inhabitants), the capital and seat of the Archbishop, Leon (23,000 inhabitants), Granada (20,000 inhabitants). Nicaragua in 1916, in consideration of a payment of 3 million dollars, ceded two naval bases to the United States and an alternative ship canal route. The total trade averages £4 millions, i.e. nearly £5 a head, and large areas of the Republic remain undeveloped for lack of capital and labour.¹ Only 17 per cent. of the population is white and 60 per cent. are illiterate.

Position and General Physical Conditions.—Nicaragua lies in Central America, between Honduras and Costa Rica. It extends from latitude 11° N. to latitude 15° N., i.e. it is in a region of uniform heat and abundant rains, especially in summer. The prevailing winds (trades) blow from the Caribbean Sea, and the western belt, lying in the lee of the highlands, has a well-marked dry season in the winter months. This belt of highlands runs through the centre of the country, dropping very steeply to a longitudinal trough parallel to the west coast, in which lie two large lakes, Managua and Nicaragua. From the latter the San Juan River drains to the Caribbean Sea, and forms the southern boundary of the Republic. This waterway offered an alternative basis to the Panama Isthmus for an

¹ For Map see Guatemala, p. 239.

Nicaragua.

interoceanic canal, and the option for the route was purchased by the United States Government in 1916. The steep escarpment already mentioned as overlooking the western trough forms a formidable barrier between the west and east of the Republic. The highlands slope eastward and terminate in a broad coastal plain, where the inhabitants are mainly pure-bred Indians and negroes, and not of mixed Spanish and Indian descent like the Nicaraguans of the West. As elsewhere in Central America, valuable forests containing hardwoods cover the lowlands, while on the highlands there are temperate forests and open savannahs.

Human and Economic Conditions.—The western region is self-supporting as regards food, growing *maize* and beans in large quantities, besides sugar, cacao, coffee, potatoes and fruits. **Cattle** are reared in very large numbers on the upland pastures, and supply meat, milk and cheese. *Pigs* are also reared, and *tobacco* is very generally grown. The money crop of this region is **coffee**, which is grown at elevations of 1,000 ft. and upwards. The annual crop is about 14,000 tons, and the export is worth about £1 million. A little **sugar** is also available for export, besides **hides** and **skins**. In the eastern region the population is mainly engaged on the **banana** plantations, which cover 41,000 acres, and here **coco-nuts** are grown, although on a much smaller scale. Food for this region (flour, lard, groceries) is imported from the United States.

The forests are exploited on both seaboard, and there is an important export of *mahogany*, *cedar*, and *dyewoods* (value £400,000), besides *chicle* (gum). Mining is on the increase, **gold** being worked by British and American companies in the north-east; the output fluctuates, the maximum being about £200,000.

Trade Relations.—The greater part of the trade is with the United States (66 per cent.), that from the two chief seaports, Corinto and San Juan del Sur, which are on the Pacific, going through the Panama Canal. Corinto is the terminus of the only railway, which runs through Leon, Managua and Granada on Lake Nicaragua; its harbour is a very safe one, and there is 26 ft. of water on the bar. France is a purchaser of Nicaraguan coffee, and small quantities go to Hamburg and Amsterdam. Great Britain and Germany supply a small proportion of the imports—chiefly cottons and metal goods. The United States has the advantage of propinquity, and has played a considerable part in restoring internal order (disturbed by a revolution), and in improving the financial and industrial position of the Republic.

General Information.—The theoretical unit of currency is the gold *cordoba*, equivalent to the United States dollar, and introduced in 1912, but the reform fell through, and actually since 1914 there has again been only inconvertible paper money in circulation. The principal banking establishments are the National Bank of Nicaragua and the Anglo-South American Bank.

The metric system of weights and measures is in use. The language spoken is Spanish, and the prevailing religion is Roman Catholic. There are Universities at Managua, Leon and Granada. Mails reach Nicaragua via U.S.A. in 3 weeks. A British Consul is stationed at Bluefields, Vice-Consuls at Matagalpa, Managua, Leon and Corinto.

Nicaragua is a member of the League of Nations.

NIGERIA

Area and Population.—The British Colony and Protectorate of Nigeria is administered by a Governor. Its area is approximately 336,000 square miles (nearly six times the area of England and Wales), and the estimated population 19 millions. There are under 6,000 resident Europeans, including magistrates and officials, missionaries, and traders. Of these there are about 500 at Lagos, the centre of administration, the terminus of the chief railway system, and the best and nearest seaport to Europe. The total population of this town with its suburbs is 100,000, but it is exceeded in size by several native cities, notably Ibadan in Southern Nigeria, with 240,000 inhabitants, while Kano in Northern Nigeria has 50,000 inhabitants. The existence of these great centres of trade and industry indicates the fact that the native peoples, notably the Yorubas, occupying the hinterland of Lagos, and the Hausas and Fulahs, who are the dominant races of Northern Nigeria, have reached a higher level of civilization than the majority of tropical African peoples. The Yorubas are negroes, and pagans, like the rest of the Southern Nigerian tribes, the Hausas have a slight admixture of Hamitic (Southern Mediterranean) blood, while among the Fulahs the Hamitic strain is dominant. Among the two last-named races Mohammedanism is the accepted religion, although not very actively practised. Nigeria is essentially a "black man's land," and the part played by Europeans must be limited to the encouragement of improved agricultural methods, the improvement of means of transport and other trade facilities, and the directing and financing of mining and other enterprises. The foreign trade was about £14½ millions before the War, and lack of transport facilities led to a falling off during the War, but progress has been steady during the last ten years, and the value of the trade averages £30 millions, with every prospect of a steady increase. Exports are slightly in excess of imports. The Governor of Nigeria also administers an adjacent strip—34,000 square miles—of Cameroonia, with about 700,000 people. It includes Buea, the centre of the former German administration, healthily situated on the slope of Cameroon Peak, together with its port of Victoria.

Position and Climate.—Nigeria lies between latitudes 4° and 14° N. of the Equator, on the shore of the Gulf of Guinea in West Africa. Hence it has a tropical climate, with a combination of excessive heat and moisture near the coast, and drier conditions, coupled with greater variations in the temperature of day and night, summer and winter, towards the interior. The rains follow the sun, so that the dry season occurs when the sun approaches the Southern Tropic (November, December, January), and lasts from three months in the Niger delta up to nine months in the extreme north, which borders on the Sahara Desert. The rains are brought by the south-west winds from the Gulf of Guinea, which are displaced by the dry, dust-laden harmattan, blowing from the north-east during the dry season. Violent storms mark the change of the season.

General Physical Conditions.—Northern Nigeria forms part of the North African tableland, and has on the whole a slope towards the north, the depression in which Lake Chad lies forming the north-east frontier of the country. The tableland is trenched by two main valleys, that of the

Nigeria.

Niger coming from the north-west and that of the Benue coming from the north-east. These rivers unite and drop as a single great river from the tableland, to cross the coast plain of Southern Nigeria, which is widened by the great delta built out by the Niger. Along the edge of the coast plain is a series of lagoons and creeks stretching from the western frontier to the delta, which forms a continuous natural inland waterway of great value along this surf-beaten coast.

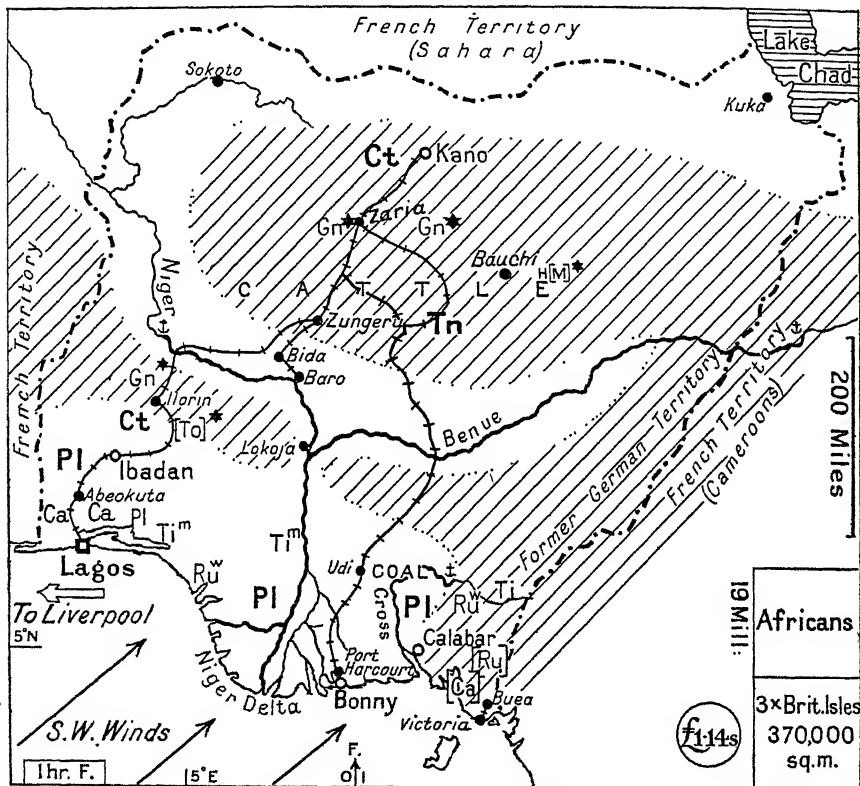


FIG. 65.—NIGERIA.

The creeks and tidal waters are bordered by mangrove swamps, and on the delta and coast plain is a very dense and luxuriant forest growth, which includes many valuable hardwood trees, such as mahogany, ebony, rosewood, besides oil and other palms, and rubber-yielding creepers. This forest thins out northwards, and gives place to a rich savannah, where patches of woodland are scattered over a great expanse of tall grasses. With increasing distance north the trees become fewer, and of types more resistant to prolonged drought, and in the extreme north the continuous carpet of grasses is replaced by a scrubland, on which succulent and thorny bushes, and coarse herbage, alone maintain a foothold.

Nigeria.

Generally speaking, the thinner and more easily cleared forest belt and the rich park-like savannah afford conditions entirely favourable to agriculture, and the whole of the region outside the forests forms good grazing country. In the north, however, drought renders the harvests more uncertain, and irrigation is very desirable. The tsetse fly prevents stock-rearing in the forest belt.

Human and Economic Conditions.—There is a very large volume of internal trade in Nigeria, Kano being an emporium for the Western Sudan generally, and having important native manufactures of cotton and “morocco” leather, which are exchanged for salt, feathers and gums from the desert. There is also an exchange between north and south, the kola nuts of the forest belt being highly esteemed for chewing by the grassland peoples of the tableland. Salt is also sent inland from the coast, and cattle for meat are purchased by the Yorubas from the northern tribes. Particular towns also have a reputation for such commodities as brass-ware, earthenware, ironwork and canoes, which, therefore, form articles of trade.

In the main, the native farmer produces only a small surplus, since the plough is unknown, and shallow hoe cultivation, with but little manuring, is the rule. Maize, millet, rice, sugar, sweet potatoes and so forth are not commercially important. Throughout the country, however, **ground-nuts** are cultivated, and the opening up of the railways has led to a trade in this product which, although only of a few years' growth, yielded an export worth over £1 million in 1921, while the output has now more than doubled. Both from the Yoruba country and from the densely peopled regions round Kano and Sokoto a further great increase may be expected. In the same regions, among others, **cotton** has long been grown for native use, and, although the Nigerian cotton is of short staple only, it has been found worth while to induce the farmers to cultivate it also as a money crop. Recent experiments have led to the discovery of a long staple variety which can be grown with success, and seed has been distributed. The chief output at present is round Ibadan and other Yoruba towns, where ginning factories have been established, but the Kano region will undoubtedly yield a surplus. So far the estimated surplus of 30,000 bales annually has not been reached, partly because the high price of imported piece goods has stimulated the local hand-weaving industry and so increased consumption. There are now, however, some 20,000 bales exported annually, with a value of about £½ million. A third crop, which the Yorubas round Ilorin and the savannah tribes are accustomed to grow somewhat carefully, is **tobacco**, and this is now being grown for export under European direction. In the coast belt, and especially in the east near the Cameroons frontier and behind Calabar, the climate is suitable for **cacao** plantations, and also for rubber. At present the chief yield of cacao is from plantations behind Lagos, where the drought is rather too long for the tree to be very successful. The yield has rapidly increased and is now worth about £2 millions. There are besides the considerable cacao plantations laid down by the Germans, in the annexed portion of the Cameroons. Here some *rubber* is also planted, and valuable experimental agricultural work is carried on at Victoria.

As has been mentioned, the savannahs, both richer and poorer, are admirable *cattle*-grazing lands, and the Fulahs and other northern peoples have many millions of horned cattle, besides woolless sheep. The opening of

Nigeria.

the railway has led to a trade in **hides** and **skins** worth from £ $\frac{1}{2}$ million to £1 million, but there is room for the development of a meat industry. At present there is only a small cold-storage works at Lagos supplying fresh meat and vegetables to the European population, which is of importance as improving the health conditions of the colony.

The value of all this farm produce is still greatly exceeded by that of the wild forest produce. **Palm oil** (over 100,000 tons) and **palm kernels** (over 200,000 tons), which ten years ago accounted for over three-quarters of the external trade, still account for over half. The oil-palm occurs throughout the forest belt and in the Benue and Niger valleys, and the nuts are brought in to all the trading stations from Lagos to Calabar. Wild **rubber** is also plentiful, although it is not of very good quality, and nurseries for seedlings are maintained by the Government to keep up the supply. The timber resources of the country are far from being fully exploited, but **mahogany** is felled wherever it occurs in proximity to the creeks or rivers. All these products are also present in (former German) Cameroon. In the savannah region the natives make use of an edible oil and fat derived from the shea-tree, and this *shea butter* is an increasing item of export. A variety of *wild silk*, not long discovered, may prove of value. Good results have followed the introduction of Government inspection of cacao and oil palm products with a view to maintaining a standard of quality.

The mineral resources of Nigeria are considerable, the natives having long worked deposits of iron, tin and lead, and of these the **tin** mines are being commercially exploited on a large scale. They occur chiefly on the Bauchi tableland to the north of the Benue valley, and the region is served by a branch of the Lagos-Kano railway. The output averages 10,000–11,000 tons, and the export is valued at over £2 millions. There is also a Government **coal** field at Udi in Southern Nigeria, 150 miles north of Port Harcourt, which lies in the east of the Niger delta. A railway constructed between these two points has been extended north to join the western system at the Kaduna River, and is connected by a branch line with the tin-fields. The coal is mined for use on the railways and is a valuable asset. There is some **oil** to the north of Lagos, but whether of importance is uncertain.

Trade Relations.—Although the United Kingdom plays a leading part in Nigerian trade, the exports are more widely distributed than was formerly the case. About half the palm oil and kernels come to England, while Germany takes large consignments of the kernels, America and Italy of the oil. The tin comes to South Wales, and nearly all the cotton to Liverpool, but the hides and skins go partly to France, while the United States, Germany and Holland rank with Britain as purchasers of cacao. Imported cottons and metal goods come chiefly from the British Isles (with Germany as a growing competitor), besides cigarettes, soap and miscellaneous stores; there is besides an import of mineral oil and raw tobacco from the States, of gin from Holland, salt fish from Germany and Norway, and kola nuts from Sierra Leone and the Gold Coast. The Government annually spends large sums on railways and other public works. Goods consigned to West Africa require special packing, since, except at Lagos, they must be transhipped to lighters and surf-boats, usually when a very heavy sea is running. In addition to the railways there is interior com-

Norway.

munication by means of launches and shallow-draft steamers on the various waterways, and among the natives by canoe.

General Information.—The Bank of British West Africa, Ltd., and Barclays Bank have branches in Nigeria. A special silver currency, based on gold and securities, with coins corresponding to those of Britain, has been introduced. Over 70,000 children are attending various schools where English is taught. Weekly mails from Liverpool reach Lagos, Forcados and Calabar in 16-18 days. There is an Imperial Trade Correspondent at Lagos.

NORTHERN IRELAND

See **Great Britain**, p. 217.

NORWAY

Area and Population.—The Kingdom of Norway has an area of 125,000 square miles (rather larger than the British Isles), and a population of about 2½ millions, i.e. rather more than twenty persons to the square mile. This low figure is due to the fact that owing to its elevation and high latitude about three-quarters of the country is unproductive. The foreign trade in 1914 totalled £54 millions, or about £21 *per capita*, while in 1917-19 it averaged £145 millions, or about £54 *per capita*. This figure would be even higher if the temporary appreciation of the krone were considered. The imports into Norway are normally higher than the exports, since they represent also the value of services rendered to other nations by the Norwegian merchant marine and by Norwegian sailors under foreign flags. The disparity was greatly increased during the war years. In 1920, however, the slump in freights, following closely on a period of heavy speculative buying on the part of importers, led to a "real" instead of an apparent adverse balance, so that in that year the krone fell 25 per cent. below par. Since the krone has again reached par value the trade totals £94 millions, or £36 *per capita*, a figure likely to increase. The high *per capita* trade of Norway is due to the fact that food staples as well as raw materials and manufactures must be imported, the country producing relatively few commodities, of which the bulk is shipped abroad. A majority of the population (70 per cent.) live in rural areas, the only considerable city being Oslo, the capital, with 260,000 inhabitants. The fishing centre and seaport of Bergen has over 90,000, while Trondhjem and Stavanger have each about 50,000, and Drammen 26,000 inhabitants. The increase in population is slow, the excess of births being under 30,000; while about 10,000 people emigrate each year, mainly to the United States, but also in considerable numbers to Canada. The State religion is Protestant and the standard of education is high.

Position and Climate.—Norway forms part of the Scandinavian peninsula, and overlooks the Norway Sea, a part of the North Atlantic Ocean. Southward it faces the Skagerrak entry to the Baltic Sea, north-

Norway.

ward it is washed by the Arctic Ocean, while eastward it marches with Sweden, and in the extreme north-east with the Republic of Finland. The extreme south of Norway is in the latitude of the north of Scotland, for it extends from 58° N. to 71° N., i.e. a large area lies within the Frigid Zone. The prevailing oceanic winds, however, and the warm Atlantic drift which passes the western and northern coast, render the climate of the lowlands unusually mild for the latitude, and the harbours remain open all the winter—a factor of importance in a country largely dependent on the sea. The temperature falls very rapidly immediately the seaboard is left behind, and this fall is accentuated by the altitude of the interior, which consequently has severe winters and an abundance of snow. The summers are cool, and as the prevailing winds are onshore, and the country is mountainous, the weather is also very rainy—much resembling that of the north-west Highlands of Scotland.

General Physical Conditions.—Norway is a lofty plateau, deeply dissected along its western margin by long winding fiords which penetrate far into the land, and afford important lines of communication, e.g. the Sogne, Hardanger and Trondhjem Fiords. Chains of islands—the Lofoten Group, Senjen, Sörö and innumerable others—fringe the coast, and ensure an abundance of safe and sheltered harbours. In the south and south-east the plateau slopes relatively gently to Skagerrak and Christiania Fiord, and here the chief cultivable lowlands are found, and the longest rivers. The valley of the River Glommen affords a route-way northward to Trondhjem, while the Hallingdal is followed by the railway from the capital to Bergen. Long, narrow valley lakes lie round the edge of the plateau, affording reservoirs of water, so that the swift rivers, broken by many waterfalls, are of the greatest value as steady sources of hydro-electric power.

The high plateau, owing to its inclement climate, is a mere waste of bog and moorland transformed into a vast snowfield in winter. The lower mountain slopes, valleys, and plains are clothed with coniferous forest (chiefly pine), or with natural pasture, only a very small proportion being under cultivation.

Human and Economic Conditions.—Norwegian farming is of local importance only, the chief crops being *oats*, *rye* and *potatoes*, while a great part of the cultivated land is under grass for *hay*. As, in addition, there is a considerable area under natural pasture, the rearing of animals is the most important branch of farming. Horned **cattle** (largely dairy cows) number just over a million. They are driven to the mountain pastures (*sceters*) in summer, while, as in Switzerland, hay from the valley meadows and from the mountain slopes is harvested for the necessary winter stall-feeding. The butter and cheese are locally consumed, but preserved *milk* is exported. *Sheep* are about as numerous as cattle, while *goats* (for milk) number 1½ million, and *pigs* 300,000. Communication between farms and villages is largely by water, since the majority of settlements are located along the fiords.

The *forests* of Norway cover over 28,000 square miles, and are an important source of wealth, the **timber**, **paper pulp** and **paper** industries yielding an exportable surplus worth about £12 millions—or nearly one-third of the total of exports. The logs can be dragged over the snow in winter,

Norway.

floated down to the saw-mills in spring, and cut up by machine saws driven by electrical power provided by the rivers : in fact, the same facilities for the industry are found as in Eastern Canada and Sweden, with the addition of an extraordinarily long ice-free coast line, ensuring adequate shipping points. The exports of pulp, newsprint, cellulose, and cardboard now greatly exceed in value that of sawn timber and pit-props. There is also an export of *matches*.

The *fisheries* of Norway are a second major source of wealth. The most important of these is the cod fishery, carried on round the Lofoten Islands and the Arctic Coast, Finmarken, yet farther north. The products, including fresh, salted and dried **cod**, **cod liver oil**, and cod roes are worth over £2½ millions ; and the industry normally employs 100,000 men and 20,000 boats. The fleet was greatly diminished during the war years, but high prices led to an increase in the value of the output. The **herring** and **sprat** (brisling) fisheries now rival that of cod, the sprats and small herrings being largely packed and sold both in Norway and Britain as a substitute for sardines. The value of these fisheries increased fivefold during the War, and in 1917 reached £3½ millions, but at normal price levels is worth rather over £1 million. Inshore and *salmon* fisheries, with *seal* and *whale* fisheries, bring the total value of the harvest of the sea to close on £10 millions, and when to this figure is added the value of the work done in preparing and packing the products for export, refining the oils, and so forth, the importance of the industry to the country is obvious. Seals are fished in the White Sea, and whales in the Antarctic Ocean, with headquarters in South Georgia, a dependency of the British Falkland Islands. Seal oil and whale oil are the products of these industries, and fish oil is also made from herrings : fertilizers are a by-product of these oil-manufacturing industries.

The *mineral* resources of Norway are varied, but not so great as those of neighbouring Sweden. The value of the output is now about £2 millions, of which over half is represented by copper and iron *pyrites*, used in the manufacture of sulphuric acid. There is also a considerable reserve of **iron ore**, although it is of somewhat low grade. The chief workings are in the extreme north, near the shores of Varanger Fiord. *Molybdenum*, *zinc*, *nickel* and *silver* are also mined on a small scale. Norwegian **granite** from the margins of Christiania Fiord is of some importance. The *smelting* works have an output worth nearly £1 million, copper being most important, followed by nickel and pig-iron. *Electro-metallurgy* (e.g. manufacture of high-grade pig-iron, ferro-chrome, ferro-manganese, and ferro-silicon compounds) and *electro-chemical* manufactures are becoming increasingly important, the most notable of the latter being the fixation of atmospheric nitrogen in the form of **nitrates** of ammonium, calcium, and sodium, the preparation of calcium carbide, and the extraction of *salt* from seawater. The well-peopled regions south and south-west of Oslo are most important in respect of these industries. The hydro-electric power stations utilize nearly 2 million H.P. out of a possible total of 12 millions. The Rjukan Falls on the upper Skien, and the falls of the Glommen, supply a large proportion of this total.

Trade Relations.—Norway is well placed for Transatlantic trade, and for trade with Britain, western Europe and the Baltic countries. Fish and fish products go chiefly to Germany, Sweden, Great

Norway.

Britain and America, timber and paper pulp to Great Britain, manufactured timber to Great Britain and France, ores to Great Britain, Germany and Sweden, the products of the chemical and metallurgical industries to Great Britain, France, Germany, Sweden and Denmark. As regards the return trade, the United States is drawn on for cereals and flour, and to a less extent these are imported from Argentina; colonial wares (sugar and coffee chiefly) are also supplied via New York or from the European entrepôts (London, Hamburg). Great Britain formerly supplied practically the whole of Norway's demand for coal, amounting to about 2 million tons annually. Recently, however, Polish coal has been exported chiefly from Gdynia and Danzig, and although this trade is hampered by the closing of waterways in winter, the British monopoly is broken. There is also a steady import of about $\frac{1}{2}$ million tons annually from Spitzbergen, a far northern dependency of Norway. In respect of textiles, British goods meet strong competition from Germany, and the same is true of metal goods and machinery, although Britain builds a large proportion of Norwegian ships. Sweden also markets manufactured goods in Norway. Recent figures showed the following distribution: Imports from Great Britain, 20 per cent.; Germany, 20 per cent.; United States, 12 per cent.; Sweden, 8 per cent.; Denmark, 5 per cent.; Holland, 5 per cent. Exports to Great Britain, 28 per cent.; Germany, 12 per cent.; United States, 10 per cent.; Sweden, 5 per cent.; Belgium, $3\frac{1}{2}$ per cent.: from which it appears that Norway's import trade, and still more her export trade, is widely distributed. This is partly a result of her favourable position in respect of the North and Baltic Seas, and her large merchant marine. The gross tonnage of Norwegian vessels is 3 millions, and their earnings are estimated at £23 millions, of which about £10 millions is expended in Norway, and so helps to correct the "adverse" trade balance.

The principal shipping ports of Norway are Oslo, commanding both Skagerrak (to the North Sea), and Kattegat (to the Baltic), Bergen, on the Atlantic seaboard (410 miles from Newcastle and 3,500 miles from New York), besides the secondary ports of Haugesund and Tonsberg, on the west coast and on Christiania Fiord respectively. There is a very large volume of coasting trade between the numerous minor ports, owing to difficulties of land communication. Narvik, on Ofoten Fiord, lying within the Arctic Circle, is always ice-free, and is hence a shipping point for the iron-ore from Swedish Lapland. Oslo Harbour is kept open by powerful ice-breakers.

General Information.—The unit of currency in Norway is the *krona* of 100 öre, worth 1s. $1\frac{1}{2}$ d., or 18·2 kroner to the pound sterling. The Bank of Norway, which though not entirely State owned, is under strict State control; alone has power to issue notes, which at present are the chief medium of exchange. The leading London Banks are agents for the Andresens Bank Aktieselskap.

The metric system of weights and measures is in general use, and is legally established. Mails from London reach Norway in $2\frac{1}{2}$ days, by air in $1\frac{1}{2}$ days. There is a British Consul at Oslo and Consular representatives at Bergen, Skien, Stavanger, Tromsø, Larvik, and Trondhjem, and some twenty-four minor ports. A Commercial Secretary is attached to the British Legation. Norway is a member of the League of Nations.

NOVA SCOTIA

See **Canada**, p. 95.

NUBIA

See **Egypt**, p. 163.

NYASALAND PROTECTORATE

Area and Population.—Nyasaland is, since 1891, a British Protectorate, administered by a Governor and Commander-in-Chief. The area is 40,000 square miles (nearly a third the size of the British Isles), while the native African population numbers nearly $1\frac{1}{4}$ million, and the European settlers 1,800. During the last few years the revenue has usually exceeded the expenditure, and the foreign trade has greatly increased, averaging £1½ million, or £700 per head of the European population. Asiatic coolie labour has been introduced. A large proportion of the natives are Christians and have received elementary teaching. The centre of government is Zomba, but the chief settlements are at Blantyre¹ and Limbe in the Shiré Highlands.

Position and General Physical Conditions.—Nyasaland lies between latitude 10° S. and 17° S., and extends along the western shore of Lake Nyasa, and southwards towards the Zambesi. The whole country is very elevated, and hence the temperature is not excessive in spite of the low latitude. There are abundant rains in the hotter season (northern winter), while the cooler months are dry. Most of the country is open grassland (savannah), with woods in the valleys and on the mountain slopes. The principal river is the Shiré, which runs from Lake Nyasa to the Zambesi, and is broken in its lower course by falls.

Human and Economic Conditions.—The chief cultivation is in the Shiré Highlands, and *coffee* was for a long time the staple crop. Recently more attention has been paid to **tobacco**, and this has become a leading product as in Rhodesia, the crop amounting to about 15 million lb. in a good year. The market is, however, by no means assured, and expansion has received a check. **Cotton** growing has yielded good results (4,300 bales), and there are some thousands of acres under **tea**, with an output of 600 tons. *Sisal* is now well established. The Protectorate is self-supporting as regards most food-stuffs, since the climate is suitable for stock-rearing, and many varieties of cereals, fruits and vegetables are grown on a small scale.

Trade Relations.—The export trade of Nyasaland is practically entirely with the United Kingdom. Communication with the sea is by the railway which runs from Blantyre through Chiromo and Port Herald to Chindio on the Zambesi, in Portuguese Africa, whence steamers run to Chinde, a small port at the mouth of the river, where there is a "Concession

¹ For Map see Rhodesia, p. 373.

Palestine.

Area " to which goods to and from Nyasaland may be brought duty free. This route is practically superseded by the new railway from Beira which reaches the Zambesi opposite Chindio, and is of great value to Nyasaland. In respect of import trade there have been great changes in recent years. Whereas Great Britain formerly supplied two-thirds of the goods required, 50 per cent. and sometimes more are now supplied by foreign competitors, including the United States: this is particularly the case in respect of cheap goods for native trade (cotton clothing, hardware). Indian cottons, too, are imported in increasing quantities, while store-keepers renew much of their general stock from Beira. The chief imports are textiles, drapery and apparel, provisions (sugar, groceries, beverages), and hardware. There are good roads, on which motors and cycles can be used.

General Information.—The currency consists of British coin, and the Standard Bank of South Africa and Barclays Bank have branches at Blantyre and Zomba. There is telegraph communication with Cape Town. Mails reach Zomba in 25 days. The Comptroller of Customs at Limbe acts as Imperial Trade Correspondent.

OBOK

See **French Somaliland**, p. 193.

OCEAN ISLAND

See **Gilbert Islands**, p. 213.

OMAN

See **Arabia**, p. 18.

ORANGE FREE STATE

See **British South Africa**, p. 78.

PACIFIC ISLANDS, JAPANESE

See **Japanese Pacific Islands**, p. 287.

PALESTINE

See **Syria**, p. 417.

PANAMA

Area and Population.—The Republic of Panama was, until 1903, a department of the South American Republic of Colombia. It has an area of 32,380 square miles (i.e. it is about the size of Ireland), and a population of less than half a million, mainly of mixed Spanish, Indian and negro descent. The foreign population includes 86,000 (coloured) British West Indians, and a few thousand Chinese. The capital, Panama, stands on the Pacific coast, and has a population of 60,000, while Colon, lying opposite to it, on the Atlantic coast, has a population of 31,000. David, the capital of the beautiful upland Province of Chiriqui, is a third considerable town. The Republic is divided into two parts by the Canal Zone, leased to the United States of America. The foreign trade is only about £3½ millions or £7 per head.¹

Position and Climate.—The Republic occupies the isthmus of Panama, a long, narrow belt of country running from west to east, and uniting the two Americas. The situation between 7° and 10° north of the Equator determines that the climate is hot throughout the year (over 70° F. monthly average), and that rain falls abundantly, especially in the early summer months.

General Physical Conditions.—A mountain range runs through the isthmus from west to east, but a break occurs between Colon and Panama, and hence this has been the important crossing-point of the isthmus, followed first by Indian trail, then by Spanish mule track, later by rail, and finally by the inter-oceanic Ship Canal. The lowlands of Panama are covered by a dense tropical forest, while there is more open country of the savannah type, with good natural pasture, on the higher ground.

Human and Economic Conditions.—More than half the country is unoccupied, and of the lands taken up only a fraction is properly cultivated. **Banana** and **coco-nut** groves cover the largest acreage, and their produce gives the bulk of the exports. Forest products, including **balata** (rubber) and **chicle** (for chewing gum), are the next large items, and there is also a steady export of **hides**, since there are over 200,000 head of cattle on the savannahs. **Coffee** planting is extending in Chiriqui, and both *cacao* and rubber can be successfully grown, but increased capital, labour, and transport facilities are required for the profitable establishment of these plantations.

An American Company owns a railway, used mainly for banana traffic, which runs along the Atlantic coast to Almirante, and is being extended westward to Limon, the port of Costa Rica. It will ultimately be extended eastwards also to the mouth of the River Chagres. The railway from Colon to Panama is owned by the United States Government, and the ports of these cities, Cristobal and Balboa respectively, lie in the Canal Zone, through which, therefore, all international trade must pass. Most vessels discharge their cargo at Cristobal (Colon).

Trade Relations.—The imports and exports of Panama total about £3 millions annually, and the imports are considerably in excess of the exports. This is due to the fact that large sums of money have been

¹ For Map see Guatemala, p. 240.

Panama Canal Zone.

invested in improvements that are not immediately remunerative—e.g. roads, railways, harbours—and that the young plantations have not yet come to full bearing, while the Canal traffic brings much trade to Panama and Colon. The figures for several years previous to 1912 and the decade subsequent to 1920 give 82 per cent. imports against 18 per cent. exports. Practically the whole import of manufactured goods and construction materials comes from the United States, the share of the United Kingdom being only one-tenth of the total import trade. The Pacific ports have some direct trade in rice, tea, cottons and silks with Japan and China. The United States take the bulk of the bananas, coco-nuts, gum, cacao and hides that are exported.

General Information.—The language spoken in Panama is Spanish. The monetary unit is the gold *balboa*, to which the United States gold dollar is legally equivalent. Immigration is encouraged, and experience in the Canal Zone has shown that with proper sanitary precautions the climate is healthy for Europeans. The “canal money” paid by America for the Canal Zone is partly applied to the establishment of an Agricultural Bank, partly to finance public improvements, while a large proportion has also been invested in the United States. The National City Bank of New York and the National Bank of Panama have offices at Panama. Mails reach Colon in 14–19 days. There is a British Consul at Colon, and a Vice-Consul at Panama. Panama is a Member of the League of Nations.

PANAMA CANAL ZONE

Area and Population.—The Panama Canal Zone, a strip of territory five miles wide on either side of the Canal Route, is under the control of the United States, and is administered by a Governor. The area of the Zone is about 550 square miles, and the civil population is nearly 28,000. These persons are employees on the Canal and Railroad with their families, of whom about two-thirds are British West Indians. Private individuals and traders are not permitted to settle or acquire land, since the Zone is a military reservation, being strongly fortified.

Position, Climate and General Physical Conditions.—The Panama Canal is situated within 10° of the Equator, and has a uniformly hot and wet climate. Yellow fever and malaria were stamped out by sanitary ordinances thoroughly enforced, and the population, both white and coloured (including women and children), is perfectly healthy. The example of Panama has led to the adoption of similar methods elsewhere, with the result that tropical fevers are no longer endemic in Latin-American ports, and the possibilities of white settlement in the tropics are greatly improved. The Panama Isthmus, through which the Canal is cut, runs from west to east, so that the Atlantic entry (Cristobal, port for Colon) is to the north, and slightly to the west, of the Pacific entry (Balboa, for Panama). The summit level of the Canal is 85 ft., necessitating a double stairway of locks, and in places the route lies through deep cuttings, where from time to time landslides have occurred which temporarily closed the Canal. The passage normally occupies seven to eight hours.

Paraguay.

Economic Conditions and General Information.—

The number of vessels passing through the Canal in the year ending June 30th, 1928, reached nearly 6,500, carrying nearly 30 million tons of cargo. American ships are naturally in the majority (42), since the Canal affords a waterway between the two American seaboard, and a route from New York to the Far East, while British ships are second in order of importance (28%), as they take advantage of the more direct route not only to Peruvian and Chilean ports, but to the Pacific Islands and New Zealand. German, Norwegian, French, Japanese, and Dutch vessels in the order named follow as frequent users of the Canal. The tolls amount to about £5 millions, while the cost of the Canal was £75 millions. The American ports of Cristobal and Balboa at either end of the Canal are fitted as coal and oil bunkering stations, while at Balboa there is a large dry dock and repairing station. At Cristobal (on the Atlantic side) there is every facility for obtaining ships' supplies (including fresh meat and vegetables), and this port does a large entrepôt trade, being a convenient receiving and redistributing centre for the whole of Latin America and the West Indies. A railway conveys passengers and freight across the Isthmus in two hours, the tracks connecting directly with the piers, docks, warehouses, etc., and every effort is made by the American Government, both by the facilities offered, and by a strong publicity campaign, to attract traffic to the Canal. The establishment of a Free Port has been mooted, but so far without result. The Panama Canal route competes with that via Suez for trade in the Far East (Shanghai, Siam), in New Zealand, and in Chile. The International Banking Corporation has offices at Colon and Panama, where also there are British Vice-Consuls.

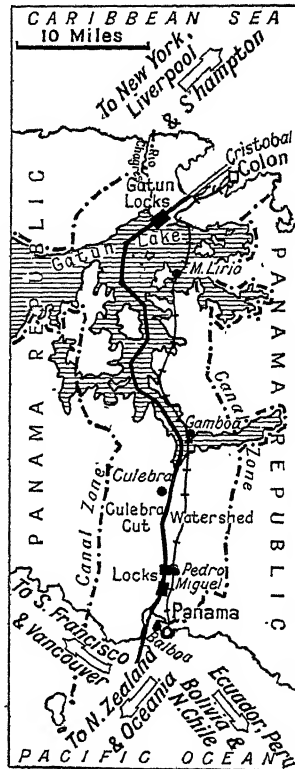


FIG. 66. PANAMA CANAL.

PAPUA

See *New Guinea*, p. 319.

PARAGUAY

Area and Population.—The Republic of Paraguay includes Paraguay proper, with an area of 62,000 square miles (i.e. rather over half that of the British Isles), and the Paraguayan Chaco, estimated to cover 100,000 square miles, over which there is a dispute as to ownership with Bolivia.

Paraguay.

The civilized population, mainly in Paraguay proper, is estimated at three-quarters of a million, while there are about 30,000 uncivilized Indians in the Chaco. The Paraguayans are mainly of Indian blood, with a strong Spanish element, and a less important negro strain, the last being derived from the old slave population of neighbouring Brazil. Of the foreign born



FIG. 67.—PARAGUAY.

population—numbering about 60,000—half are Argentines, a quarter are Italians, and there are several thousand Spaniards and Germans. There is only one large city, Asuncion, the capital, river-port, and entrepôt of Paraguay, with over 100,000 inhabitants. Villa Rica has 26,000. The foreign trade has increased from £2 millions to £5 millions during the last ten years, largely owing to improved communications with Argentina. This represents nearly £7 a head.

Paraguay.

Position and Climate.—Paraguay is one of the inland Republics of South America, its territory marching with Bolivia, Brazil and Argentina. Paraguay proper lies in the fork between the rivers Paraguay and Alto Parana, while the Chaco lies on the west bank of the Paraguay, in the fork between that river and the Pilcomayo. The whole country is comprised between latitudes 21° S. and 27° S., the Tropic of Capricorn running through it. Hence it has a sub-tropical climate, with hot summers and warm winters. In Paraguay proper there is a moderate rainfall, well distributed through the year, while in the Chaco the rainfall is limited to the summer months, and the winter is a season of drought.

General Physical Conditions.—Between the broad, low-lying valleys of the Paraguay and Parana rivers, the ground rises gradually to a central watershed, which is nowhere more than 2,800 ft. above the sea. This high, rolling country is a southern spur of the great plateau of Brazil. It is covered with rich natural pasture, and open woodlands, while the lower ground is clothed with evergreen forests. The Chaco country is a great plain, rising gradually towards the west. It is for the most part an open grassland, lightly timbered with palm trees, but there are also woods of the hard, drought-resisting quebracho.

Human and Economic Conditions.—The climate of Paraguay is very favourable to agriculture, but only a very small acreage is under cultivation, and the methods employed are primitive. Development naturally took place first of all in the neighbourhood of the great navigable rivers, of which the Paraguay is available for steamer traffic throughout and beyond the boundaries of the Republic, and the Parana for steamers as far as Posados, and for smaller craft far into Brazil, although it is broken at intervals by falls. The chief railway runs diagonally from Asuncion, at the junction of the Pilcomayo and the Paraguay, via Villa Rica, to Encarnacion on the Parana, where a train ferry is available to Posados, the terminus of an Argentine railway from Buenos Aires.

Maize, manioc, beans, sweet potatoes and some *rice* are the staple crops grown for local use. The greater part of the **tobacco** crop is exported, the annual surplus of some five thousand tons being purchased before the War by Germany. Citrus fruits grow to perfection, especially **oranges**, and in spite of an enormous home consumption, the annual export has reached 12 to 14 million dozens, sent mainly to Argentina and Uruguay. Paraguay is the main source of supply of *Petit grain oil* from the leaves of a bitter orange. The export of *bananas* has also begun. The climate and soil conditions are suited to a large scale production of *sugar, cotton* and *ground nuts*. Such developments must, however, await the improvement of labour supply, roads and railways.

At present, stock-raising is the main industry to which capital is applied in Paraguay, millions of acres of land being devoted to grazing, mainly of horned *cattle*, of which there are over 5 millions. The native breeds are gradually being improved by crossing with pedigree British stock, and also by the introduction of Indian zebu blood into the herds, the resulting cross having been found in tropical Brazil to be peculiarly suited to a hot climate. The *meat* packing and curing industry is encouraged by the Government, and animal products form an important export, while live steers are also travelled south to be slaughtered in Argentina and Uruguay. Three

meat-packing establishments, belonging to United States companies, have been erected in Asuncion.

The virgin evergreen forests of eastern Paraguay yield large supplies of **yerba maté** (Paraguay tea), which is one of the staple exports (7,000–8,000 tons); the Chaco country to the west furnishes **quebracho** extract for tanning. *Timber* (including cedar and quebracho) is cut for local use, and there is some export to the treeless pampa of Argentina.

Large *iron* and *manganese* deposits at Ibicui await development, when means of transport are improved.

Trade Relations.—At present all the trade of Paraguay goes southward, either on river steamer, or by the through-railway from Asuncion to Buenos Aires and the Plate estuary. A line running westward from Villarica to join the Brazilian railway system at Curityba would bring the Republic several days nearer to Europe.

The handling of an increasing proportion of Paraguayan trade by Argentine merchants, and the decay of direct trade with foreign countries has been a feature of the last decade. Only 6 per cent. of the trade is now directly with Great Britain, and that with the United States, Germany, Spain and Italy is correspondingly small. Germany's share before the War was very considerable. Argentina furnishes a local market for oranges and yerba maté, but the other products are shipped from Buenos Aires with Argentine goods; similarly, while Argentina furnishes the large import of wheat and flour, the cotton textiles and hardware are ultimately supplied from the same foreign sources as is Buenos Aires itself.

Vessels drawing 9 ft. can reach Asuncion, except at midsummer, i.e., January and February. An international train runs through to Buenos Aires. A wireless service has been installed.

General Information.—A paper currency, subject to a fluctuating exchange, is in use in Paraguay, but the gold peso, reckoned at five pesos to £1 sterling, is a money of account. The Bank of London and South America has a branch at Asuncion. The metric system of weights and measures is employed side by side with the old Spanish system (*quintal* = 101 lb.). The language spoken is Spanish, and the established religion is Roman Catholic. The population is largely illiterate. Mails reach Asuncion in 23–29 days. There is a British Consul at Asuncion. Paraguay is a Member of the League of Nations.

PATAGONIA

See **Argentine Republic**, p. 19.

PERSIA

Area and Population.—The Kingdom of Persia (or Iran) was under the absolute rule of the Shah until 1906, when a National Council was established. In 1925 the Kajar dynasty was overthrown, and a new Shah elected by the Constituent Assembly. The area of the country is about 628,000 square miles, i.e. it is three times as large as France, but the popula-

Persia.

tion is estimated at 9 millions only, of whom 3 millions are pastoral nomads. Trade figures are approximate only, but the external trade may now be valued at £38 millions, as compared with £27 millions in 1919 and £20 millions in 1914. Exports represent about 60 per cent. of the total, consequent on the valuable output of mineral oil, but the activities of the Anglo-Persian Oil Company have also stimulated imports, both directly by the import of construction material, and indirectly by the payment of large

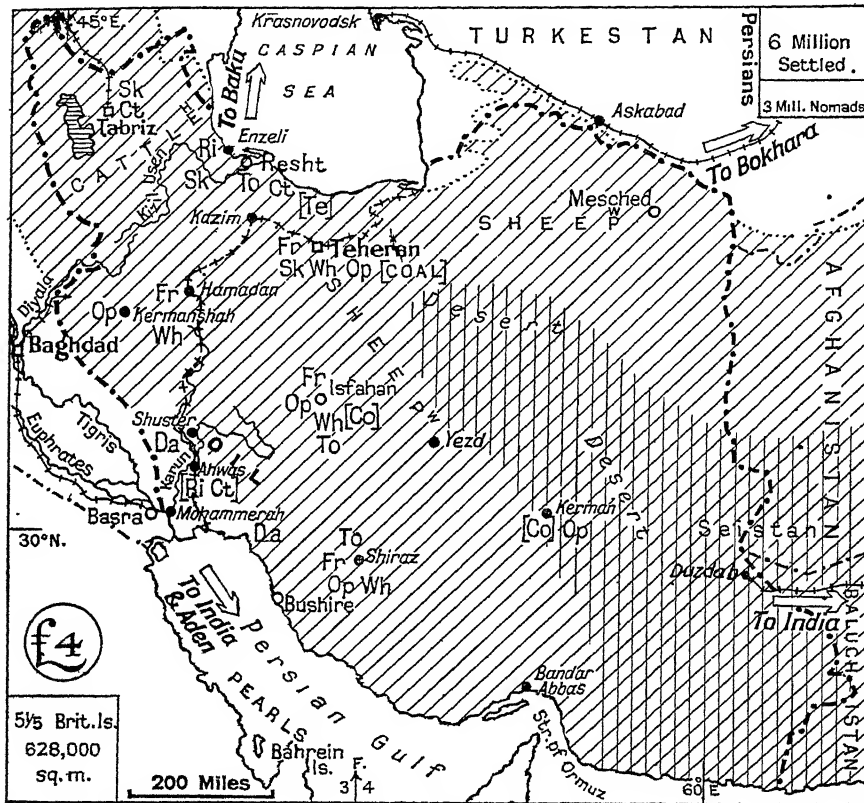


FIG. 68.—PERSIA.

sums in wages. Trade with adjacent Russian territory is as yet far from normal, so that the *per capita* figure of £4 is capable of increase. From another point of view the figures are far from representing the potential trade of the country, which under the influence of the priestly class has hitherto kept apart from Western influences and Western commercial life. Recently very decided steps towards Westernization have been taken by the governing classes, for European officials are engaged to direct the Customs, Post Office, Police, and similar departments, while the wearing of European dress is made compulsory.

Previous to the War the predominating foreign influence in Persia was

Persia.

Russian, the sphere defined as British being a largely desert tract adjacent to Baluchistan and the Arabian Sea. The exigencies of war, followed by the Anglo-Persian agreement, gave Britain a much more important place in trade and politics, and Persia has become a market worth consideration. The people of the towns are racially akin to the various south Mediterranean peoples, and the wealthy middle and upper classes are accustomed to a high degree of luxury and refinement in their homes and persons, but for the multitude cheap grade goods are essential.

The most populous cities are in the north, near the Russian frontier. They are Teheran, the capital, with 350,000 inhabitants, and Tabriz, the chief city of the north-western province of Azerbaijan, with 180,000. Isfahan, Meshed and Resht are also important.

Position and Climate.—Persia lies between the Caspian Sea to the north, and the Persian Gulf and Gulf of Oman to the south. It forms part of the high plateau stretching through Asia Minor eastwards to the border of India. Situated between latitudes 40° and 25° N., it has a sub-tropical climate, which in many respects resembles that of Spain and Algeria. The summer days are very hot, although the nights are cool, and the winters are warm, except in the mountains north-west and north, where there is a cold season with frost and snow. The rainy season is in winter, as in the Mediterranean lands, and only in the north and north-west is the rain at all plentiful. Elsewhere there is a moderate fall on the higher ground, while in the sheltered valleys and on the plains there is a marked deficiency, so that the centre and east of the country are largely desert.

General Physical Conditions.—The north-western province of Azerbaijan includes part of the mountain knot of Armenia, from which the ranges diverge that enclose the plateau of Iran. Eastward runs the lofty Elburz chain, which isolates the Caspian seaboard, save where it is cut through by a plateau river, the Kizil Usen. These mountains are prolonged eastwards by the lower bordering ranges of Khorassan, which separate Persia from Turkestan, and they finally merge into the mountains of Afghanistan.

The second series of ranges from Azerbaijan run south-eastwards, and take the form of parallel ridges, rising steeply from the plains of Mesopotamia, and from the deep trough in which lie the waters of the Persian Gulf. Between these ridges there are well-watered valleys and elevated plains, such as the fertile plain of Isfahan. Flowing eastward from the plateau border are two rivers of importance: the Diyala, which opens a valley route directly down from Persia to Baghdad, and the Karun, which crosses a flood plain to join the Shat-el-Arab. The plain of the Karun (Arabistan), though politically part of Persia, is geographically part of Mesopotamia, and has the same intensely hot and dry climate, and the same fertility when irrigated.

The extreme south of Persia, forming part of the Makran, is likewise bordered by parallel mountain ranges. Thus the only open frontier of the country is that towards the dry basins of Baluchistan and Afghanistan. Shared between the three political units is the depression known as the Seistan—a region which in ancient days was irrigated and well peopled, and yielded great harvests of grain.

The wet northern slopes of the Elburz Mountains are forested with oak, beech, walnut and plane, and in the north-western mountains are the remains of once extensive forests. Elsewhere the bordering ranges are thinly wooded

Persia.

with evergreen oak, wild olive and wild mulberry, or clothed merely with scrub. The interior high plains are steppe-like in character, and have many thorny and prickly shrubs and plants. Towards the east, where the dry and often cold winds from Turkestan sweep across the plains, are the Salt Desert and the Desert of Lut, which are almost bare of vegetation.

Human and Economic Conditions.— Save along the margin of the Caspian Sea, and in the north-west, the agriculture of Persia has always been dependent upon irrigation, water being led by canals or aqueducts from the mountain streams, or raised by water-wheels from wells. Hence, the further opening up of the country involves the expenditure of capital upon irrigation schemes by which large and fertile areas, e.g. on the high plain of Isfahan (5,000 ft. elevation) and on the low plain of Arabistan, might be brought under permanent cultivation. The occurrence of winter rains and hot dry summers marks out the country as one pre-eminently suited, like California, to **fruit** culture: the grape, peach, apricot, pomegranate, fig, almond and pistachio nut all grow to perfection, and the soft fruits are sun-dried for export. In addition mulberry trees form the basis of a **silk** industry, and olives and melons flourish, both of which might become articles of commerce.

The staple grains of winter rainfall regions, namely **wheat** and **barley**, are harvested in spring, leaving the fields free for summer irrigation crops. The prolonged hot season allows **rice** and **cotton** to be grown where sufficient water can be obtained, while *opium*, *tobacco* and *linseed* are valuable, especially the first named, because of its portability in a land of costly caravan transport. The tobacco of the Caspian provinces is similar to Turkish tobacco, and might be marketed in Europe. In the same fertile region, near Resht, *tea* plantations have proved successful, and might be greatly extended.

Dates grow in the Shat-el-Arab region and in the Makran, i.e. in the most sultry parts of the country, and are prepared for export at Mohammerah; *lucerne* (alfalfa), the fodder crop best suited to dry soils, is also planted, and the acreage might be increased side by side with a development of the existing pastoral industries.

The great natural grazing lands and mountain pastures beyond the limits of the irrigated oases are devoted to stock-raising, carried on by nomad tribes. Sheep and goats are reared for their **wool**, which is sold in the cities and there woven into *rugs*, *carpets*, and shawls of high value. Camels and donkeys are numerous, and serve as pack and draught animals, while a few horses are bred for riding purposes. Cattle are most important in the north-west and north, where the wetter climate makes richer pasture and cheaper fodder.

The *mineral* wealth of Persia is probably very considerable, but its development must await improved transport facilities and the inflow of capital. The chief deposits are *copper*, near Isfahan and Kerman, *coal* along the inner margin of the Elburz Mountains, and *iron*, all of which are worked for local use. The only mineral exploited on commercial lines at present is **oil**. The fields occur in the south-western ranges, and are the property of the Anglo-Persian Oil Company, in which the British Government has a controlling interest. A pipe line runs for 100 miles to the refineries at Abadan, on the Shat-el-Arab, near the port of Mohammerah. Only part of the field is worked, and there is also an unworked field of promise in the north-west, near the Caspian Sea, so that the total resources may exceed those

Persia.

of Mexico. The output was over 42 million barrels in 1928, and oil heads the list of exports, representing 50 to 60 per cent. of the total.

The native *industries* include *hand-weaving* of textiles, of which carpets and rugs (chiefly from Astrabad, Kerman, Shiraz and Tabriz) are the most important, followed by silks, cottons, and woollens. One or more of these is practised in all the considerable towns. The flocks and herds also supply material for a *leather* industry—saddlery, harness, boots and shoes—centred largely at Hamadan, on the pilgrim route from Teheran to Baghdad. Tobacco and opium are also manufactured.

Trade Relations.—Before the War, two-thirds of Persia's trade was with Russia, and less than a quarter with the British Empire. Hence the routes and ports of the north were the best developed. The quickest route from Europe is via the Batum-Baku railway and thence by water to Enzeli, the out-port of Resht, whence there are metalled roads via Kazvin to Teheran and Hamadan. An alternative is the railway from Batum to Tiflis, and thence to Tabriz, when the road must be taken. The noted wool province of Khorassan can be reached via the Turkestan railway. From the railhead on the frontier at Askabad a poor road runs to the city of Meshed.

Raw cotton, rice and fruit were the main staples going to Russia, while cottons and sugar were received in return, besides some metal and leather goods. The import trade was, however, less exclusively in Russian hands than the exports, since India could readily supply cottons and tea, while Great Britain sent metal goods and machinery, besides woollens.

At present the British Empire (practically Great Britain and India) has half the total trade (including two-thirds of the mineral oil export), while Russia has under 20 per cent., Egypt (which takes a third of the oil) ranking next. Already, however, Russian sugar fills more than half of the very considerable demand, while Russian cottons, although representing only 10 per cent. of the total, are the strongest competitor with those of Great Britain and British India. Russian grain, too, can be cheaply supplied to supplement the scanty Persian harvest, and northern Persia uses Russian mineral oil. Trade is flowing back, therefore, into what must be considered its most normal channels.

There are five southern routes into Persia of varying usefulness. From Baghdad a railway reaches the frontier at Khanikin, whence a metalled road leads via Kermanshah to Hamadan, a very important route centre, and thence to Kazim, where it forks to Resht and Teheran. From Mohammerah on the Shat-el-Arab the Karun is open to foreign vessels as far as Ahwaz, whence there is a caravan route to Isfahan. The latter town is also reached by road from Bushire on the Persian Gulf via Shiraz. From Bandar Abbas, a port farther east on the Gulf, a similar road runs to Kerman, the chief eastern plateau centre, and this town is also served by a caravan route from the Baluchistan frontier, where Duzdap is now the railhead of the Indian Quetta-Nushki line, over which traffic is greatly increasing. A railway is partly completed from the Persian Gulf via Ahwaz and Hamadan to Teheran and thence to Bender Gaz on the Caspian Sea.

Bushire on the Persian Gulf does a trade of about £4 millions, chiefly in British and Indian cotton goods, Indian tea, continental sugar, and *American motor cars, balanced by a large export of opium to the Far East.

Peru.

Bandar Abbas does a similar trade on a smaller scale, save that the chief export is carpets, besides some fruits and dates.

Transport by pack animals is both slow and costly, hence any increase in production of such bulky staples as grain, cotton and fine wool must go hand in hand with increased facilities for motor and rail transport. The local oil supply points to a future for the motor truck.

General Information.—The Persians of the towns and villages are Mohammedans of the Shiah sect, while the nomads (Arabs, Turks, Kurds) are of the Sunni sect. There are, besides, 120,000 Armenian and Nestorian Christians and Jews, who monopolize much of the trade. The monetary unit is the *kran*, a silver coin worth £ $\frac{1}{50}$ sterling. The native weights and measures are unstandardized, but the metric system has been officially introduced. The principal bank is the Imperial Bank of Persia, with a London office, and there is also a National Bank and several branches of the Banque Russo-Pusane and the Ottoman Bank. French is widely spoken among the educated classes.

Mail routes are now via Russia, Iraq or Bombay, taking 11 days' to 3 weeks, and there is telegraphic communication with India. There are British Consul-Generals at Bushire, Meshed and Isfahan, a Consul at Tabriz and Teheran, and Consular representatives at all the leading ports and caravan centres. Persia is a Member of the League of Nations.

PERU

Area and Population.—The Republic of Peru has an area of rather more than 530,000 square miles, i.e. it is $4\frac{1}{4}$ times as large as the British Isles. Its population is not exactly known, but it is estimated at 6 millions. Of this number, about half are civilized Indians, a quarter are of mixed blood, and fewer than three-quarters of a million are of pure European (Spanish) descent. The capital city, Lima, has 260,000 inhabitants, while its port Callao, eight miles away, has 66,000. There is one other considerable town, Arequipa, with a population of 35,000 to 40,000. The foreign trade has risen from about £3 a head in 1913 to an average of about £8, the exports being considerably in excess of the imports. The total is about £50 millions.

Position and Climate.—Peru is one of the Andean States of South America, and lies wholly within the tropics, no part being more than 18° from the Equator. It is in the belt of the south-east trade winds, and this fact, combined with its varying elevation, gives it several distinct climates. The eastern (interior) slopes of the Andes, and the plains at their base, are always very hot and have drenching rains—they form the *Montaña* region. In the *Sierra*, or mountain zone, the sun is intensely hot owing to the clear air, but the great height (6,000 to 12,000 ft., with peaks rising to 19,000 ft.) makes the shade temperatures low, while it is often frosty at night. In this region the rains fall chiefly in summer—November, December, and January—while the winter months (our northern summer) are dry. The third region is the Pacific Coast Belt. Here, since the winds are parallel to, or blow away from the shore, there is practically no rain, and sea mists

alone moisten the soil. The heat, although great, is not excessive, for a cool ocean current is drifted along shore by the wind and slightly cools the air, while its offshore movement in the north of the Republic causes an upwelling of colder water, which has a similar effect.

Peru marches with Ecuador, Brazil, Bolivia, and Chile, with all of which States there have been boundary disputes. That with Chile has been settled, Tacna going to Peru and Arica to Chile.

General Physical Conditions.—The coast region is an arid desert, except where the numerous short rivers from the Andes moisten the soil and make fertile oases. The mountain zone or *Sierra* is divided into separate chains (the coastal, central, and eastern Cordillera), and innumerable spurs, by the head streams of the Amazon, which flow for some hundreds of miles in a north-westerly direction (i.e. parallel to the coast). Subsequently they cut through the eastern Cordillera and, by a series of narrows, rapids and gorges, drop down to the Amazonian Plain, where they become navigable. The three main rivers of this character are the Marañón, Huallaga, and Ucayali. Together with their minor tributaries, they have cut deep ravines into the Sierra, which are warm and sheltered, and hence are the chief agricultural centres. In the extreme south, the character of the Sierra changes: in place of the deep ravines there is a high cool plateau, buttressed between the eastern and coast Cordillera. This is called the *puna*. It is a region of inland drainage, the waters gathering in Lake Titicaca, a great navigable sheet of water nearly as large as Wales, of which part is in Bolivia.

In the ravines, and on the eastern slopes of the Andes, there are dense forests, the *Montaña*, which extend down to the Amazonian Plain, the trees varying from tropical to temperate types according to the height above sea-level. In the high intermont valleys, on the plateau, and on the loftier mountain slopes there are no trees, but there is abundance of natural pasture, grazed by flocks of llamas, alpacas and sheep, and by the wild vicuña.

Human and Economic Conditions.—The rainless coast zone is the most important agricultural region, water being supplied by artificial irrigation to about 4 million acres. The staple crops are **sugar** and **cotton**, grown for export at the expense of a local food-supply. The most important sugar plantations are behind the ports of Pacasmayo, Salaverry and Chimbote, and in the province of Lima. Some fifty miles south of Lima city lies the fertile valley of Cañete, where the British Sugar Co. has its plantations and refinery. The latter is the largest of some fifty sugar centrals in the coast zone, the town of Trujillo (for which Salaverry is the out-port) being especially important. The canes yield very heavily, and the output is over a quarter of a million tons a year, although reduced prices have led to some decline.

The cotton plant is native to Peru, and the local varieties are those mainly planted. Egyptian cotton (grown under very similar conditions) is, however, found to do exceedingly well, and "sea island" cotton moderately so. The chief cotton districts are found in the provinces of Piura, Lima and Ica, and are connected by rail with the ports of Payta, Callao and Pisco respectively. The sugar plantations likewise have rail connection with the nearest coast port. The output of cotton is about 100,000 bales, of which 10 per cent

Peru.

is consumed locally. A third crop of the irrigated lands is *rice*; the quality is excellent, but the quantity (about 40,000 tons) is usually insufficient

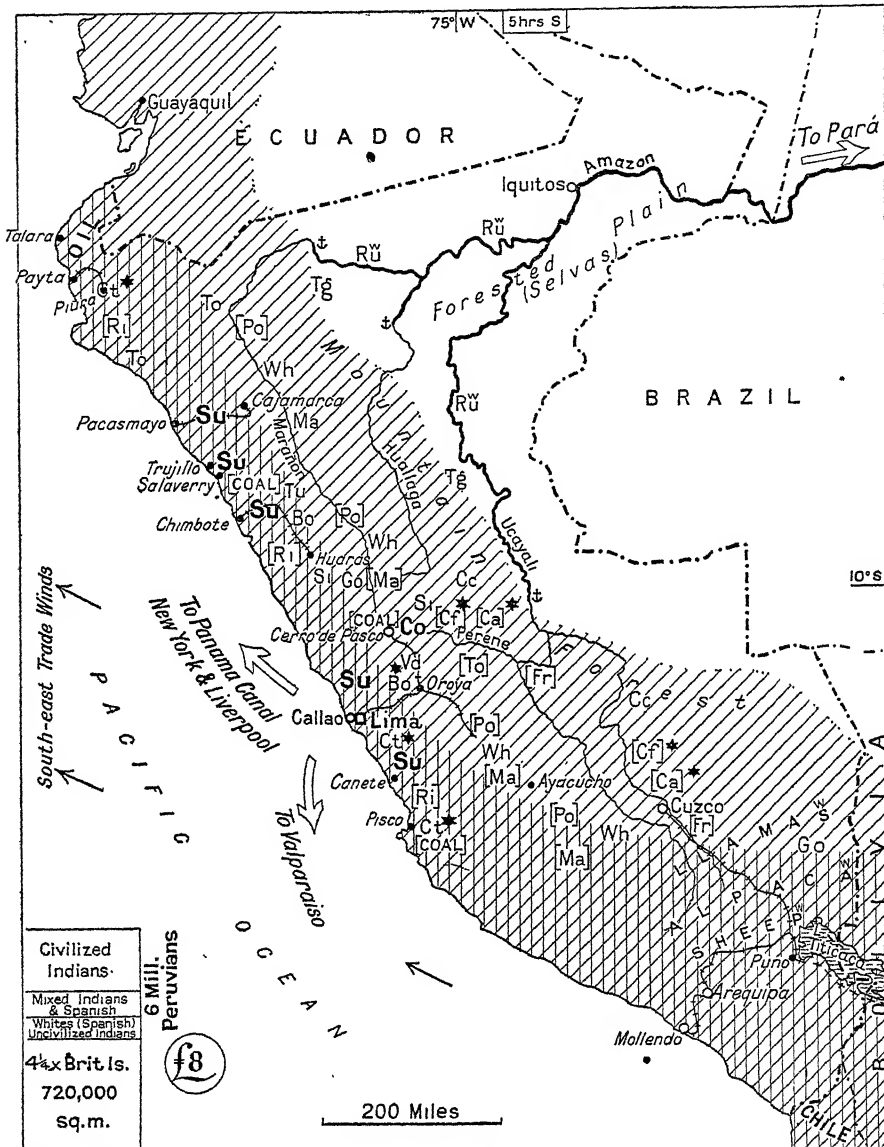


FIG. 69.—PERU.

for local requirements. With additional capital for irrigation works, and additional labour for the plantations, this region is capable of very much greater production. Chinese coolies are excluded by law, but several

Peru.

thousands of Japanese are to be found at work, and there is some Italian immigration. An additional area of nearly $\frac{1}{2}$ million acres will be brought under cultivation with the completion of the works in the Olmos desert, in the northern section of the coastal plain.

In the Sierra or mountain zone, mining is the principal industry, but whereas the leading mineral was formerly **silver**, its supremacy has been challenged by **copper**, which has even held the first place in periods when prices for the metal ruled high, the value of the output of each metal being round about £3 millions annually. The quantity of copper produced has reached 48,000 tons, and of silver over 600 tons annually. *Vanadium* ranks next in importance, for Peru produces four-fifths of the world supply, valued at about £1 $\frac{1}{2}$ millions, and there is a small output of gold, valued at £ $\frac{1}{2}$ million annually. *Borates* deposits are very extensive, and zinc and lead are being exploited.

Cerro de Pasco is the headquarters of an American Mining Company, which has large copper smelting works there. The company also has vanadium mines, a coal mine, and a large hydro-electric plant to supply the power they require. A railway connects the mines with Lima via Oroya.

Although there is coal in the Andes, the more accessible fields are in the coast belt, notably behind Payta, Salaverry, Chimbote and Pisco, yet these are scarcely touched and five-sixths of the total output of 350,000 tons is from the Cerro de Pasco Company's workings. There are also very important **oil**-fields in the extreme north, the oil being piped to the ports of Talara and Lobitos, just to the north of Payta. The output has steadily increased and is valued at over £15 millions annually (12 million barrels in 1928). Three-fourths is available for export. Large areas of oil-land still await development.

Round about the mining towns of the *Sierra*, agriculture is carried on to supply local needs, the *potato* being a staple food crop up to 13,000 ft., and *maize* up to 11,000 ft. Both these plants are native to Peru. Latterly considerable attention has been paid to *wheat*, the principal centres of production being Cajanarca, Huancayo and Arequipa, but the crop of 80,000 tons is insufficient for the country's needs. The Sierra is also the chief pastoral region, the Indian shepherds leading their flocks of llamas, *alpacas* and *sheep* to the higher or lower pastures according to the season. The male llamas are used as beasts of burden, as are donkeys and mules. Neither horses nor cattle are suited to the rarefied air at these great elevations. Arequipa is an important market for wool, especially for alpaca, the export of which is about £ $\frac{3}{4}$ million annually. For this wool, Yorkshire is the chief market. Arequipa receives supplies also from Bolivia, with which it has rail and steamer connection via the Arequipa-Puno railway and Lake Titicaca.

A branch of the same railway runs northward to Cuzco (population 15,000), a city which in addition to mining has important agricultural activities. Cuzco is situated in the upper valley of the Ucayali, in one of the typical deep ravines of the eastern part of the Sierra. In these ravines (notably in the Perene valley near Cerro de Pasco) plantations of coffee, cacao and coca (for cocaine) are very successful, and the output of these products is increasing. In addition the cultivators grow tobacco, vines, olives, fruits, maize and so forth for local use, bestowing but little care upon them. The *tobacco* of some regions, notably north Peru, is of very good quality, and

Peru.

this is a crop that merits attention. Labour and transport facilities are all that is needed for the rapid extension of this sub-tropical agriculture, since there is an enormous acreage of fertile, healthy country awaiting colonization. At present both manufactured and unmanufactured tobacco is imported in large quantities.

In the Montaña region beyond the Andes, the same difficulties are even more acute. The rivers are the main lines of communication, and the entrepôt for the whole area is Iquitos, the port on the Amazon standing below the confluence of the Marañon, Huallaga and Ucayali rivers. Iquitos is reached by ocean-going steamers from the United States and Europe, and has a population of 15,000 to 20,000, according to the season. Its chief export is **rubber**, of which both hevea (Para) and *balata* are collected in the Peruvian forests. A second product of growing importance is *ivory nuts*. Iquitos is in wireless communication with Lima, but until the Oroya railway is extended down to the Montaña any traffic between the two towns is most easily carried on via the mouth of the Amazon and the Panama Canal.

The manufactures of Peru include the making of cotton textiles at Lima, Arequipa and Cuzco, the annual output being 45,000,000 yards, and a much smaller woollen industry at the same centres. Apart from this there are sugar and oil refineries, smelting works, rice mills, tanneries, cocaine and tobacco factories (the last a Government monopoly): that is to say, industry is entirely concerned with the preparation for market of local raw materials. Panama hats are manufactured on a small scale in the north. The *guano* production (130,000 tons) from the desert islands off the Pacific coast, once a great source of revenue to Peru, is now carefully conserved for local use.

Trade Relations.—Petroleum ranks first among Peruvian exports, followed by cotton, copper and sugar. The bulk of the cotton comes to Liverpool, while the sugar is divided between Great Britain and Chile, and the copper, with vanadium and other metals, goes to the United States. The United States and Britain take leading parts alike in the import and export trade, although an important proportion of exports go to Argentina and Chile, and Germany is getting back some of her former trade. Food and drink (including rice and other grain) stand first on the list of imports, closely followed by machinery—agricultural, electrical and miscellaneous. The cotton goods import is under £2 millions, and that of woollens only about £½ million. Jute goods (for bales and sacks) are an important secondary import.

Callao, on a sheltered bay, with good wharves, is the leading port by which goods enter Peru (70 per cent. of total), and serves as a distributing centre both for the Sierra, by the Central Railway system, and for the coast, by coasting steamers. Mollendo, with 10 per cent. of the import trade, has the second place; like Callao it is the starting point of a railway into the Sierra, but the two systems are at present isolated. Payta, with the best natural harbour in Peru, has the third place, and Salaverry (for Trujillo), the fourth. The export trade is more evenly distributed, Callao having only 36 per cent. of the total. Mollendo again has the second place, followed by Salaverry, Payta, Talara (for oil) and Pisco in the order named.

The railways of Peru, together with the Titicaca navigation and the Guaqui-La Paz railway of Bolivia, are in the hands of a British Company,

Philippine Islands.

the Peruvian Corporation, which also holds a large acreage of agricultural land in the eastern valleys, and is promoting their colonization.

Callao has a good harbour, and is in frequent communication with Panama and (bi-weekly) with Liverpool. At other ports goods must be lightered, and a heavy ocean swell is a great handicap to shipping.

General Information.—The language spoken in Peru is Spanish. The State religion is Roman Catholic. There is a gold standard, and the national gold coin is the *libra*, equivalent to the pound sterling. The metric system of weights and measures is in use, except for the customs tariff, for which the old Spanish units are retained. The Banca del Peru y Londres is the British bank of Peru; the Anglo-South American Bank, the National City Bank of New York, the Royal Bank of Canada, besides Italian and German banks have branches at Lima. Mails reach Lima via Panama or Buenos Aires in 18–30 days. There is a British Consul at Lima and at Iquitos, and Vice-Consuls at Lima, Arequipa, Mollendo, Salaverry, Paita and Callao. A Commercial Secretary is attached to the British Legation. Peru is a Member of the League of Nations.

PHILIPPINE ISLANDS

Area and Population.—The Philippine Islands were ceded to the United States by Spain in 1899, and have had since 1916 an autonomous government, at the head of which is a Governor-General, appointed by the American President. The area of the group is 114,500 square miles (rather larger than Italy), and the population is about 12½ millions. Over 90 per cent. of the people are Christians, and have received an elementary education, while many thousands pass through the secondary schools and enter the large State-supported University at Manila. Hence the Filipinos are fully qualified to occupy the highest Government positions, and to enter the learned professions. There are still some hundreds of thousands of uncivilized pagans, both Filipinos and pygmy negritos, and there is a Mohammedan population in the extreme south of the group, Islam being a widespread religion in the neighbouring Indies. The Filipinos are of the Malay race.

The capital city and chief port, Manila (on the island of Luzon), has a population of well over a quarter of a million, including Americans and Europeans and also some 18,000 Chinese. The latter people are established as shop-keepers and traders in all the towns, and number 59,000. Four minor seaports, Cebu, Iloilo, Laoag and Legaspi have each over 30,000 inhabitants. The summer capital for Europeans is at Baguio, in the mountains. The per capita trade is nearly £5, i.e. less than that of Japan, but much greater than that of India: this gives a total of £55–60 millions.

Position, Climate and General Physical Conditions.

—The Philippines stretch between Formosa and the East Indies, and look westwards to the China Sea, eastwards to the Pacific Ocean. Lying between latitudes 5° N. and 19° N. (the latitude of southern India), the islands have a tropical climate, dominated by the monsoons, which blow alternately from the south-west (summer) and from the north-east (winter), and thus bring rains from the west and from the east at opposite seasons.

Philippine Islands.

The islands being mountainous, those areas sheltered from the winds are relatively dry, and droughts are not unknown, but floods from excessive rain are of more frequent occurrence. Still more disastrous are the typhoons which from time to time travel across the China Seas.

The mountain slopes are covered with forests of palms, wild bananas, bamboos, rattans, and various tropical timber trees. In some localities there is a more open savannah country, clothed with rich grasses. The soils are very fertile, and largely of volcanic origin.

Human and Economic Conditions.—The Filipino farmers are mostly smallholders, and their methods of cultivation are open to great improvement, the yield per acre of the staple crops being much lower than in such countries as Japan and Java. **Rice** is the principal food-stuff of the people, and covers the largest acreage. The output of 2 million tons is not quite sufficient for the home demand and has to be supplemented by an import from continental Asia. From the standpoint of British trade, Manila **hemp**, the best of common rope materials, is the most important commodity produced, since its value is four-fifths that of the total export trade to Britain. The plant yielding it is a member of the banana family, and so far has not been grown successfully elsewhere. The chief plantations are in the eastern margins of the group, and the fibre is inspected and graded by Government, Manila being the market. *Sisal hemp* is also grown, and *maguey fibre* has some importance.

Of greater general importance than the hemp fields are the **coco-nut** groves, which are very numerous on these islands, with their enormous length of coastline. The actual export of copra has diminished, for owing to the difficulties of shipping during the War a number of large modern factories were erected at Manila, where the *coco-nut* oil is extracted and exported as such. In 1927 the output of copra and oil was worth nearly £9 millions.

The most valuable money crop to-day is **sugar**, which suffers rather from being produced on small farms instead of on the more economical large plantations. There are now large central crushing mills, but in the absence of local refineries the raw product is exported, while refined sugar has to be imported. Sugar heads the export list with a value of £10 millions the output being over half a million tons.

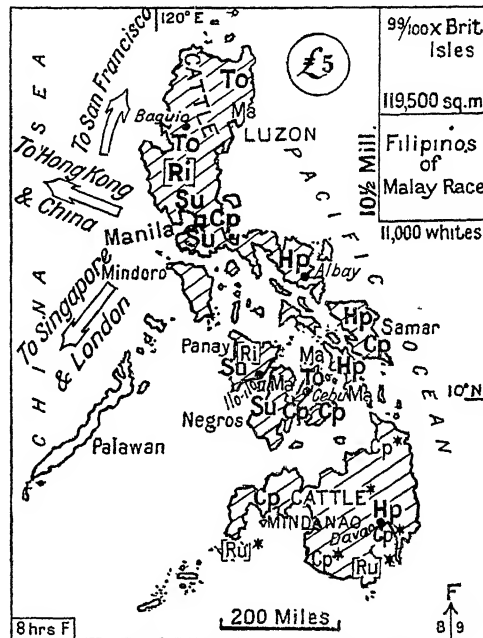


FIG. 70.—PHILIPPINE ISLANDS.

Philippine Islands.

Tobacco of good quality is grown in certain fertile valleys in northern Luzon, and is exported both in the leaf and in the form of the well-known Manila cigars. The value of these products is £2 millions. Other crops for which the climate is suitable are *maize*, coffee, cotton, and rubber. Fruits also grown in abundance, and *bananas* are marketed to a certain extent.

The *lumber* resources (hardwoods) are considerable, although the growing export is so far small (£½ million). Other forest products are rattans, bamboo, and tan-bark.

Horned cattle, including the carabao, are used for draught purposes, and the existence of rich grasslands suggests that the rearing of *cattle* for meat could be made successful. The native breeds of pigs, poultry and ponies might also be improved, and made more valuable by increased care. In spite of their climatic advantages, the islands are not self-supporting as regards either animal or vegetable food-stuffs.

The Philippines are rich in *minerals*, but only **gold** is mined on a serious scale, the annual output being worth about £300,000. *Petroleum* has been proved in the Bondoc Peninsula (S.E. Luzon), and some *lead* and *manganese* are already worked.

The most valuable manufacture is that of cigars, followed by embroideries, hats and cordage.

Trade Relations.—Nearly three-fourths of the outgoing and 60 per cent. of the ingoing trade is normally with the United States, since there are no protective tariffs between the two countries, but the United Kingdom is a considerable purchaser of hemp, copra and coco-nut oil, and has the second place on the export list with 5 per cent. of the total. The same products also reach Britain via the entrepôts of Hong-Kong and Singapore. Sugar is divided between the refineries of Hong-Kong, Japan and the States, the last-named taking three-fourths; and the bulk of the tobacco and cigars is marketed in the East.

Britain plays only a subordinate part in the import trade (5 per cent.), although the leading goods in demand are cottons (30 per cent. of total), and manufactures of iron and steel, both British staples. In the former class Japanese competition is keen, and that country is the second largest importer (9½ per cent.), supplying also silk goods and refined sugar. From the United States come galvanized sheets, wire, tools, cutlery, machinery, textiles, wheat, flour, canned goods (fish, meat and milk), leather goods, automobiles, paper, and so forth. French Indo-China sends rice and fish, while from China come cottons, pork and beef, and from Australia meat and dairy products. Germany, Spain and France buy copra, while German imports, especially of metal goods, show a steady increase.

Manila stands on a sheltered bay and has excellent harbour facilities. American effort has been directed towards making it an entrepôt for the Far East, but its situation is decidedly inferior to that of Hong-Kong and Singapore, although it might become a centre for American trade with the East Indies and Indo-China when this is developed. Railways (nearly 800 miles) and roadways (nearly 7,000 miles) have been constructed since the American occupation, and every encouragement is given to the peasantry to take up undeveloped land, of which there are large tracts, especially in Mindanao. Motor cars and trucks are widely used.

General Information.—The educated classes speak English and

Poland.

Spanish. The coinage, weights and measures are based on those of the United States, the metric system being in official use. Traders also use the *picul* of 140 lb., and the *quintal* of 102 lb. The value of the *peso* is fixed at half a (U.S.) dollar, although during the financial crisis of 1921 parity was not maintained. The Government bankers are the Philippine National Bank, and besides native banks there are branches of the International Banking Corporation, the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, and the Yokohama Specie Bank. Mails reach Manila via Siberia in 24–29 days, and via Suez in 32–36 days. There is a British Consul-General at Manila, and Vice-Consuls at Iloilo (Panay Island), Cebu (Cebu Island), and Zamboanga.

PLEASANT ISLAND OR NAURU

See **Nauru or Pleasant Island**, p. 314.

POLAND

Area and Population.—The area of the Republic of Poland, including the Vilna district taken from Lithuania, may be estimated at 150,000 square miles, and the population at 30 millions. Of these about 19 millions are Poles, 1 million are Germans, and over 4 millions are Russians. The Poles are Roman Catholics, the Ruthenians (Russians) of Eastern Galicia are Greek Catholics, and the Ukrainians (Russians) on the eastern frontier are Greek Orthodox by religion. There are also 2 million Russian and Polish Jews, who live as a rule in the large towns. The external trade reached a value of £137 millions in 1928, or over £4 10s. a head, and a total of at least £150 millions may be looked for in the near future. Russian Poland was one of the best-developed parts of that Empire; German Poland, although mainly an agricultural region, was, like the rest of Germany, very thoroughly and scientifically exploited; while Austrian Poland was on the whole one of the backward portions of Austria-Hungary, and had considerable undeveloped potentialities and assets. Hence the new State, under settled conditions, should take rank with the most important countries of Central Europe. Since the League of Nations award on the plebiscite in Upper Silesia led to the union of a fifth of that area with Poland, instead of with Germany, the economic position of the Republic has been considerably strengthened. The capital city, Warsaw, has a population of nearly 1 million (i.e. is rather larger than Birmingham), while Lodz, a great industrial centre, has nearly half a million people. Lwow (Lemberg), the largest town of Eastern Galicia (formerly Austrian), has over 200,000; Cracow in Western Galicia has 180,000; Posen (Poznan), the chief centre of former German Poland, has 185,000; Vilna (claimed by Lithuania) has 129,000; Katowice, the largest centre in Silesia, has 105,000; while Byelostok, an agricultural and industrial centre, Czestochowa, a textile centre, and Sosnowiec in the mining region, have each nearly 90,000 inhabitants. There is great poverty among the peasants of both eastern and southern Poland, and in the latter region (Galicia) the density of

Poland.

population is greater than the land, under existing conditions, can support. Hence each year tens of thousands of Poles leave their country, of whom a large proportion go to the United States and Canada. Others, in great numbers, go temporarily to Germany or to France, to work as agricultural or unskilled labourers, returning with their wages to their homes. Even in western Poland, which is not overpeopled, there is a strong tendency to migrate westwards to the wealthy industrial regions of Germany or to America. There was a total emigration of 248,000 in 1927. Elementary education is compulsory, and at Warsaw, Cracow, Posen, Lublin and Lwow there are Universities. In addition, there are several important institutions for technical and scientific study.

Position and General Physical Conditions.—Poland lies between the North German and the Russian Plains. It consists essentially of the basins of the Vistula and Upper Warta (a tributary of the Oder), and stretches from the Carpathian Mountains towards the Baltic Sea. Only by a narrow corridor, however, does it actually reach the shore, and the city of Danzig, standing at the head of this corridor, has been created a free port, lying outside the Republic. Except in this corridor, which follows the valley of the lower Vistula, the northern boundary is formed by the Masurian lakes and marshes, a poor and thinly peopled territory which interposed a natural barrier between the Poles and the East Prussians who occupied the actual seaboard. In consequence of its position, the climate of Poland is intermediate between the purely Continental (i.e. extreme) type found in Russia, and the milder, wetter type of Western Europe. The average temperature in December, January and February is well below freezing point, while the summers are rather hotter, and brighter, than those experienced in London. The rainfall (except on the Carpathians, where it is considerable) is only moderate (less than in East Anglia), but as most of it falls in the summer, sufficient is normally available for the crops. Snow falls in winter, but does not lie at all thickly as it does in Russia. The rivers and canals are closed by ice until the March thaws set in, and Danzig harbour is only kept open by ice-breakers. The whole of Poland was at one time glaciated, and consequently glacial soils, including clays, loams and sands, often of great fertility, are widely distributed. The tendency is, however, for the drainage to be poor, so that many areas are water-logged, and must be artificially drained before they can be put under the plough. The largest such area is the Pripet marshes on the Russian frontier. East of Lwow a portion of the rich "black earth" country comes within the boundaries of Poland, and the *rendzina* of the Radom district is a local soil of great value. Beneath the glacial soils, the plains are built of young sedimentary rocks similar to those of the English Plain, and containing no minerals, but the Łysa Góra Hills, south of Radom, and the hilly country north of Cracow, are built of much older rocks, and both are mining regions. The Carpathians are built largely of sandstone, and, except in the central region south of Przemyśl, are well clothed with timber, especially fir, spruce and pine. Except for the country east of the Dniester, which is steppe land, the whole of the plain was at one time forested with mixed deciduous and coniferous trees, and in spite of the gradual destruction of the woods for generations as the farmlands were extended, a considerable proportion of the country (25 per cent), especially where the soil is poor, is still heavily timbered.

Poland.

Human and Economic Conditions.—Agricultural methods, including the generous use of manures, the employment of up-to-date machinery, and careful rotation of crops, are most advanced in former Prussian Poland, and most backward in Galicia. As has been already stated, the Polish peasants are very poor, and their standard of comfort is consequently low, while it is necessary for women and children to work upon the land to bring the family wage up to subsistence level. Hence crops can be grown which require considerable attention and hand labour, the most important being **potatoes** and **sugar-beet**. The potato crop is now over 30 million tons, the area sown being $17\frac{1}{2}$ per cent. of the arable land in eastern and western Poland, although only 6 per cent. in Galicia. Potatoes are a very important staple of peasant diet, but an enormous surplus remains for the distillation of *alcohol*, and for *starch* manufacture and potato *syrup*. The sugar-beet crop before the War was about 4 million tons, yielding 720,000 tons of sugar, of which the greater part was available for export, although much was then consumed in other parts of Germany and Russia. In 1920–21 the sugar output was 400,000 tons, and by 1928 it had risen to over $\frac{3}{4}$ million tons, with a surplus for export of $\frac{1}{2}$ million tons. Owing to the rather unfavourable climate, the most important cereal crops are **rye** and **oats**, and black bread is generally eaten by the peasants. The output of these cereals is in excess of local requirements. **Wheat** is grown on the best soils in western and eastern Poland, but is relatively more important in Galicia, where, as it lies farther south, the climate is somewhat warmer. **Barley** is rather more important than wheat, and there is an exportable surplus, but **maize** appears only on the steppe lands of Eastern Galicia. Both wheat and maize, besides flour, are supplemented from the fields of Hungary and Rumania.

Among secondary crops, *flax* and *hemp* are very generally cultivated, although often merely for local use by the peasants, the export being 20,000 tons. *Hops* are grown on a small scale, partly for export, besides *colza* and feeding-roots.

The animal industries are important, since the beet-residue and oats supply feeding-stuffs, and in Galicia there is a very large hay crop. **Horse-breeding** is widely carried on, and there were about $8\frac{1}{2}$ million horned **cattle** in 1927, considerable attention being paid to dairying. In conjunction with the latter, *pigs* and *poultry* are reared in large numbers, and there is a large export of livestock, meat, bacon and eggs. Sheep-breeding has declined with the sub-division of the land into small holdings, and is only of local importance for mutton and coarse wool.

A law has been passed limiting the size of estates and holdings, and large owners are gradually being dispossessed, while the wasteful "strip" cultivation of common fields by the peasantry is being replaced by unified holdings.

The mineral resources of Poland are fairly considerable, more than sufficing for the needs of the industrial regions. The **coal**-fields are situated in the south-west, and are an extension of the fields of Upper Silesia and that part of Silesia incorporated with Czechoslovakia. The Dabrowa district, in former Russian Poland, was the most important previous to the Silesian award, while the Galician field, west of Cracow, has large reserves. The pre-war output of these fields was under 9 million tons, or about a third of the requirements of the Republic, and did not include coking coal. The

Poland.

The *iron and steel* industry of pre-war Poland was only fairly developed, the smelting works (located in the south-west within easy reach of the iron and coal mines) turning out under half a million tons of pig-iron. The Upper Silesian award placed important German iron-ore mines, besides blast furnaces, foundries, rolling-mills and engineering workshops within the boundaries of Poland, and the output of steel is now over a million tons, and that of pig-iron over $\frac{1}{2}$ million tons. Iron and steel articles are mainly produced at Warsaw, and in all the chief urban centres there are engineering and machine shops turning out tools and the lighter kinds of agricultural machinery. *Oil-refining* is an important and growing industry.

Galicia, with abundant and varied timber resources, has manufactures of bent-wood *furniture*, veneers, parquet-flooring, boxes, barrels and other articles, and *timber* itself is very largely exported from many parts of Poland.

Minor industries are the manufacture of *leather* goods, *paper* and *glass*, and in Warsaw and its suburbs many kinds of luxury articles and fancy goods. Broadly speaking, however, the manufactures of Poland can supply only a part of the domestic demand, and the country offers an important market for most varieties of manufactured goods. The abundance of cheap labour is one of the main assets of the Polish (or the German-Polish) manufacturer.

Trade Relations.—A recent analysis shows Germany as supplying 25 per cent. of imports and taking 32 per cent. of exports, while the United States supplies 13 per cent. of imports (chiefly cotton and grain) but takes a negligible proportion of exports. Great Britain has the third place in supplying imports (9 per cent.) and the second place (12 per cent.) in taking Polish exports. France supplies a fair proportion of imports in competition with Austria and Czechoslovakia, while the two latter countries offer markets for Polish produce. Germany has recently excluded Polish coal, which now goes chiefly to Scandinavian markets, and there are certain restrictions on the German import of Polish timber (pit-props, sleepers, etc.).

The surplus yield of food-stuffs (sugar, meat and poultry products), raw materials (timber, flax, metals) and mineral oil finds a ready market in Czechoslovakia, Austria and industrial Germany, and even farther west. In return Poland must have wheat and maize, which the Ukraine, Rumania, or Hungary can supply in exchange for Polish manufactures, these being more suitable for Eastern than for Western European customers, and she must also import raw cotton and raw wool, vegetable fats and oils, manures, fish, and colonial produce, besides large quantities of manufactured goods, especially those of high quality or of complex character. Czechoslovakia, Germany, Switzerland and Austria are favourably placed for supplying these goods, while Great Britain can ship them directly by sea to the free port of Danzig, which is the principal gate of entry into Poland now that the customs barrier is abolished. Gdynia has been developed as an all-Polish Baltic seaport.

Poland has a useful system of internal waterways for carrying timber, coal, ores, etc., provided by the Vistula and its main tributaries, which are linked through the Bromberg Canal and the Bug-Dnieper Canal with North Germany and the Ukraine respectively. The railway system and the roads are being renewed and extended.

General Information.—The monetary unit is the *zloty*, of

Porto Rico.

which 43.38 zloty = £1, and 1 zloty = 100 grosz. The metric system of weights and measures is in use. The Bank of Poland, Anglo-Polish Bank and Banque de Commerce Etranger à Varsovie have London agents. Mails reach Warsaw in 2–2½ days, or by air in 1½ days. There is a British Consul at Warsaw, Consular Representatives at Boryslaw, Lemberg, Lodz, Katowice and Posen. A Commercial Secretary is attached to the British Legation. Poland is a Member of the League of Nations.

PORTO RICO.

Area and Population.—Porto Rico was ceded to the United States by Spain in 1898, and has representative government. On an area of 3,500 square miles there is a population of nearly 1½ millions, that is to say the island is very densely peopled. The northern seaport and capital, San Juan, has 71,000 people; the southern seaport, Ponce, has 42,000. The *per capita* trade of over £30 a year bears witness to the prosperity of the country, and its value to the United States, which it supplies with tropical produce. As in Cuba, whites are greatly in excess of coloured persons among the population, the proportion being as three to one. The whites are of Spanish extraction, the coloured population is mainly negro, but since 1898 there is

also a small but important group of white Americans. Spanish is generally spoken, and Roman Catholicism is the prevailing religion, while a majority of adults are illiterate. Every facility, however, is now afforded for the elementary education of the younger people and children.

Position, Climate and General Physical Conditions.

Porto Rico forms one of the group of islands known as the Greater Antilles, and lies in

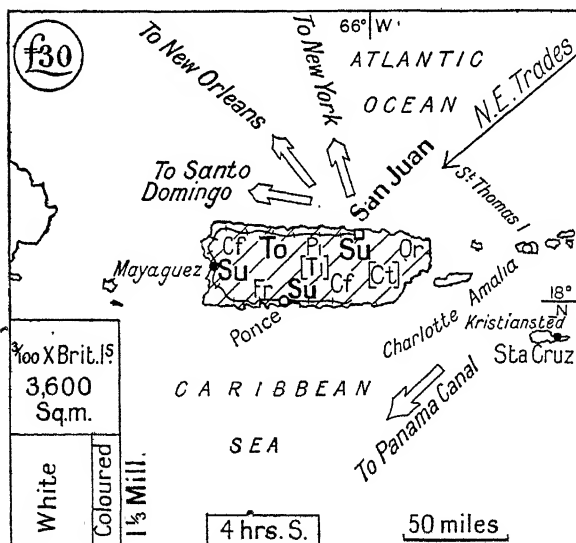


FIG. 71.—PORTO RICO.

latitude 18° North, i.e. within the tropics. It is in the direct track of the north-east trades, and as it is mountainous in character, the rainfall, especially in the summer months, is abundant. The lee-slopes of the mountains are, of course, drier than the windward slopes and summits, and here, therefore, the season of winter drought is more severely felt. The winters are very warm, and hence irrigated land is almost continuously

Portugal.

productive, and many of the plantations are already improved by this means. The soil on the coastal plain and in the valleys is unusually rich, and contains a high percentage of lime. The better-watered upland areas are densely forested with evergreens, which include valuable *cabinet woods* (*mahogany*, *ebony*, *cedar*), *dye woods* and *tanning materials*, which are as yet scarcely exploited. In drier situations, natural pasture, mingled with drought-resisting trees and shrubs, predominates. The island lies, unfortunately, in the hurricane track.

Human and Economic Conditions.—Cultivation is confined to the coastal plain, the valleys, and the lower slopes of the mountains, the bulk of the land being divided into small holdings. *Coffee* grown on the higher mountain slopes was formerly the main staple of the island, but although it is of high quality, and still important, it has taken the fourth place owing to the great increase in **sugar** and **tobacco** planting and in **fruit** culture. Nearly $\frac{3}{4}$ million tons of sugar is annually produced, and the export of this commodity alone is worth about £11 millions. The tobacco includes fine qualities, especially cigar-leaf, grown under artificial shade, and there is a large manufacture and export (to U.S.A.) of *cigars* and *cigarettes*, as well as of tobacco, the total value being £3-4 millions.

The industry of most recent but rapidly growing importance, which depends upon the proximity of United States markets, is *fruit* and *vegetable* growing. Citrus fruits, especially oranges and grape fruit, are in demand, and pineapples, both fresh and canned, are also exported in bulk, while coco-nuts have recently been added to the list. The total export value is over £1 million. Sea-island and other varieties of *cotton* are cultivated with success, although at present on a small scale only, while rice, sweet potatoes, yams and so forth are grown for local use. The rearing and export of *cattle* is of potential importance, as is the development of the *timber* resources already mentioned.

Trade Relations and General Information.—A railway running along the coastal plain, with a few small extensions unites San Juan, Mayaguez and Ponce, but there is room for improved transport facilities. The trade is almost exclusively with the United States, with which regular communication is maintained, and Porto Rico also serves as an entrepôt for neighbouring islands. The direct trade with Europe is negligible. United States money, weights and measures are employed. There are branches of the Royal Bank of Canada in the leading towns and a British Consul at San Juan. Mails arrive in 12-18 days.

PORTUGAL

Area and Population.—The Republic of Portugal has an area of 34,254 square miles, or with Azores and Madeira, which are considered as integral parts of the Republic and not as Colonies, a total of 35,500 square miles. It is, therefore, rather larger than Scotland. The population is approximately 6 million persons, of whom nearly half a million live in the islands. The total foreign trade averages £31 millions or £5 a head, which is much lower than that of Italy, and even than that of Spain. Imports are, however, normally in marked excess of exports, and

Portugal.

the balance is only partly redressed by money spent by foreign visitors in Madeira, by returns from the Colonies, and by money sent home by Portuguese emigrants and labourers in foreign lands. The capital city and principal seaport, Lisbon, has a population of about $\frac{1}{2}$ million, while Oporto, the only other large urban centre, has 216,000 inhabitants. Setubal, the second port, has 37,000 people. The majority of the Portuguese are Roman Catholics, and the percentage of illiterates among adults is very high, but the proportion of children under instruction has lately increased. The death-rate is rather high, and there is steady emigration of about 40,000 annually, of whom over half go to Brazil.

Position and General Physical Conditions.—Portugal lies to the west of Spain, along the Atlantic seaboard, between 37° and 42° N. latitude. Owing to this favourable position, the Portuguese were among the earliest traders in the Far East, and still retain large colonial possessions, although the former importance of Lisbon as a colonial entrepôt has greatly declined. The country has the mildest winters of any part of Europe, while the average summer temperature is modified by the oceanic position, and the rains, though not excessive, are sufficiently abundant for agriculture. Towards the north they are fairly well distributed through the year, but in the centre and south, the summers are dry, and the sunny days are often very hot. This is especially the case in Algarve, a small province in the extreme south which has a southern aspect, and an almost African climate. The country as a whole is mountainous, especially in the north, where the Douro runs in a very deep, steep-sided valley, and the principal lowland is in Estremadura, to the south of the lower Tagus. The three principal rivers, the Douro, Tagus and Guadiana, flow across the Spanish tableland before entering Portugal, and each descends to sea-level through a wild gorge near the frontier, that of the Tagus being valueless as a route-way to the interior. This river has a splendid estuary, sheltered by hill ranges, upon which Lisbon stands. The Guadiana flows southward, its lower course forming the frontier.

The configuration of the country determines that considerable hydro-electric power is available, of which but a small fraction has been utilized. Conditions are most favourable in the north, where the régime of the rivers is more uniform.

Human and Economic Conditions.—The staple industry of Portugal is agriculture, but over 20 per cent. of the country is classed as waste, although it is probable that with scientific management part of this area could be reafforested, or made to bear crops. The leading cereals are **wheat** and **maize**, the former doing best in the drier south, while the latter yields more vigorously in the north, where the summers are not so dry. The estimated crop of each cereal is 300,000 tons, but some wheat is also imported, while some moves into Spain. *Beans* and *peas* are also largely grown (75,000 tons), since they form a staple of peasant diet, and there is a small *rice* crop. The chief commercial crop is, however, the *vine*, which furnishes a most valuable Portuguese export, in the shape of port and other **wines**. Port wine is made from the grapes grown on the valley sides of the Douro and its tributaries, and the centre of the trade is Oporto. The Ebro valley has also very extensive vineyards. Over-production, and the marketing of wines of poor quality immediately after the War,

Portugal.

led to depression in the industry. Orchards cover an area slightly greater than that of the vineyards, the most important products being the **olives** and oranges of the centre and south. The normal yield of olive-oil is a million hectolitres, leaving a good margin for export, but occasionally (as in 1920) the crop fails. In addition *figs*, peaches, apricots, almonds, pears, plums (Elvas), pomegranates, melons, and many other varieties of fruits and nuts, besides such vegetables as *onions* (known as "Spanish"), *tomatoes* and early potatoes are grown partly for export.

The animal industries are mainly of local importance. Horned *cattle* are more numerous in the wetter north, while *sheep* and *goats* graze on the coarse natural pasturage of the drier south. *Pigs* are pastured in the mountains and hills, which are clothed with vast forests of oak.

The chief commercial product of these forests is **cork** from the cork oaks, which cover one-fifth of the forested area. The yield is over 80,000 tons, and Portugal leads the world in this industry. There are, besides, sweet *chestnut* forests, which might be extended, since this tree has proved very profitable in southern France. The oaks are also valuable as timber trees, as are the pines, which cover nearly half the forest acreage, but there has been no systematic exploitation of these resources, partly for lack of transport facilities. Tar, resin, turpentine, pulpwood and barrels are all produced on a small scale and pit-props are exported to South Wales.

The *fisheries* of Portugal employ over 50,000 people, and this industry has lately expanded. The chief fish caught are **tunny** and **sardines**, which are characteristic of these warm waters, the latter being more important. Since olive-oil is locally produced, the packing of fish in oil has become a considerable industry, and Portuguese sardines were marketed in Britain during the War to the value of £6 million or more annually. Setubal, to the south of Lisbon, is the leading fishing port. During the boom, a very inferior product was, however, placed on the market by a section of the manufacturers, with the result that Portuguese sardines fell into disrepute, and the industry suffered serious loss. The present sardine output is valued at £1½ millions, and creates a return import from Great Britain in the shape of tin-plate.

Mining is neglected, owing largely to legislative restrictions, although minerals are abundant, and the total output is under £1 million value, although during the War there was some advance made under the stimulus of high prices. **Iron ore** (pyrites) has the greatest value, the chief mines being in the south, with Setubal as the shipping port; **wolfram** (tungsten ore) is next in importance, the output of ore rising to 1,400-1,600 tons during the War but falling with reduced demand to 500 tons. There is very little *coal*, a factor retarding the general development of industry, but *tin*, *lead* and *copper* are extracted on a small scale, while the preparation of *bay-salt* gives employment to large numbers of workers at Aveiro, at Setubal, and on the estuary of the Tagus, where there are shallow lagoons.

The small manufactures of Portugal, including woollens, cottons, porcelain tiles, soap, leather, distilling, etc., are of local importance only, finding their market in the country itself, or in the Colonies. Only 20 per cent. of the population are engaged in industry, as against 60 per cent. engaged in agriculture.

Trade Relations.—Great Britain is a large purchaser of Portu-

guese produce, particularly of wine (£2½ millions), sardines and cork, besides fruit and vegetables, taking in some years nearly half the total. Coal, textiles, machinery and hardware are sent in return, but their value is usually less than that of the imports, and makes up only one-sixth to one-seventh of goods purchased by Portugal abroad. Spanish, Italian, French and German manufactured goods are marketed in Portugal, and recently there have been greatly increased imports from the United States. A considerable quantity of colonial produce also comes into Lisbon, including cacao and rubber (which are partly re-exported), oil-seeds and coffee, and a large tonnage of general cargo changes bottoms.

Except at Lisbon, which is a first-class harbour, goods must be lightered, and vessels drawing over 18 ft. must discharge at Leixoes or Villa Nova for Oporto. The tonnage entering and clearing at Lisbon is over 5 millions, of which British and German vessels represent over half; nearly forty steamship lines touch regularly at the port.

General Information.—The unit of currency in Portugal is the gold *escudo* (formerly the milreis), worth normally 4s. 5½d. Notes are issued by the Bank of Portugal. The metric system is legally adopted, but the *libra* of 1·012 lb. is still in common use, while the measure of capacity is the *almude* of 3·7 gallons at Lisbon and of 5·6 gallons at Oporto. The chief banking institutions are the Banco de Portugal, the Banco Nacional Ultramarino, and the Bank of London and South America.

Mails reach Portugal in 2½ days. There are a British American Consul at Lisbon, and Vice-Consuls at Leixoes (the outport of Oporto), Figueira (a small port at the mouth of the Mondego), Setubal, Oporto and Faro (in Algarve). A Commercial Secretary is attached to the British Legation. Portugal is a Member of the League of Nations.

PORTUGUESE EAST AFRICA

Area and Population.—Portuguese East Africa has a total area of 427,000 square miles (twelve times the size of Portugal), and a population of about 3½ million natives, 20,000 whites and over 1,000 Asiatics. The colony is divided into three distinct parts: (1) The Province of Mozambique (including the Lourenço Marques, Gaza, Inhambane, Tete, Quilimane and Mozambique districts), which is administered by a High Commissioner; (2) the territory of the progressive and enterprising Mozambique Chartered Company, running from the Sofala-Beira district to the Zambesi; (3) the territory of the Nyasa Chartered Company in the extreme north. The total foreign trade is about £16 millions, but £9 millions of this is transit and entrepôt trade, since the most direct routes to the Transvaal, Rhodesia and Nyasaland are through Portuguese territory. The capital of the province is Lourenço Marques, with over 37,000 inhabitants, of whom nearly a quarter are Europeans. The largest native town is Mozambique, the former capital. Since Great Britain received a mandate for Tanganyika Territory, the colony marches with British territory on every land frontier.

Position, Climate and General Physical Conditions.

—Portuguese East Africa stretches along the east coast of South Africa,

Portuguese East Africa.

facing the Indian Ocean and the large island of Madagascar. As it extends from 11° S. latitude to 27° S., and is for the most part low-lying, the climate varies from tropical in the north to sub-tropical in the south, and is marked by the alternation of a wet summer season and a dry

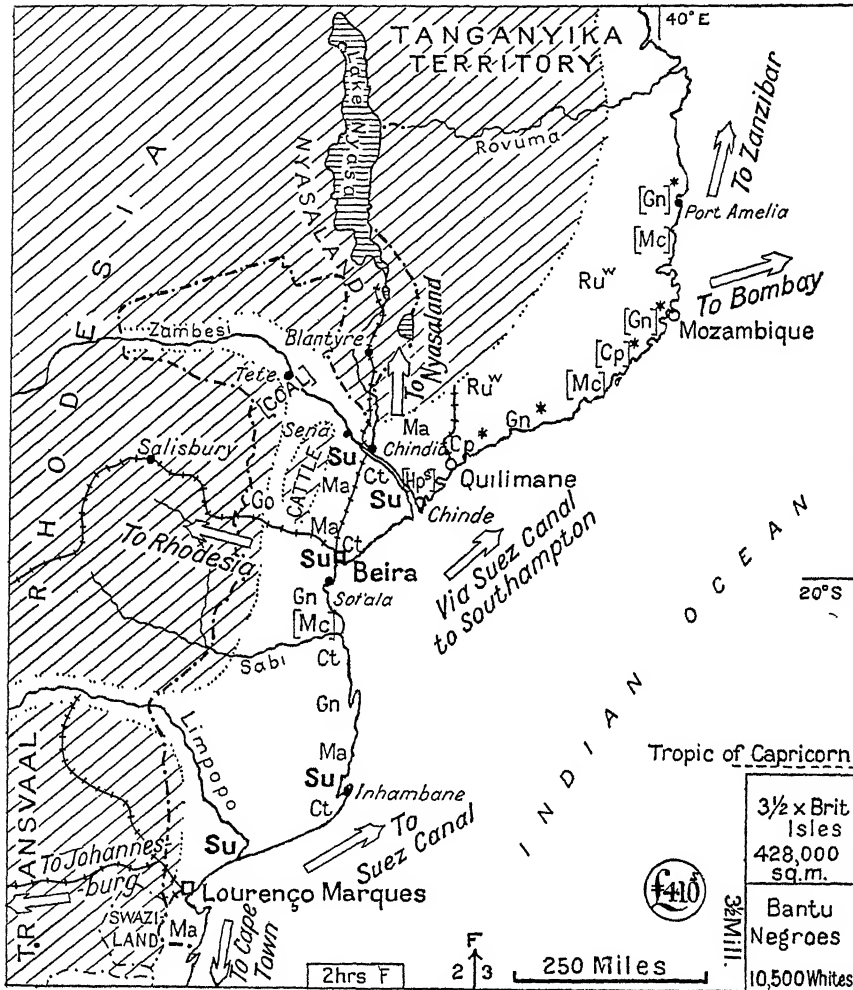


FIG. 72.—PORTUGUESE EAST AFRICA.

winter season. The lower Limpopo and Sabi rivers in the south, the lower Zambesi in the central region, and the lower Rovuma on the northern frontier are the principal rivers. The marked seasonal character of the rainfall causes the rivers to fall very low at times, and lessens their value as means of communication.

Portuguese East Africa.

Lying in the lee of Madagascar, the colony does not have a very heavy rainfall, so that dense tropical forests are confined to the Limpopo valley and the Zambesi valley and delta, while the coast is fringed with mangrove swamps. Elsewhere the country is lightly wooded, or clothed with thorn forest or park-like savannah.

Human and Economic Conditions.—The natives grow manioc, millet, ground-nuts and similar crops for their own use, and collect *rubber, gum, and wax* from the woods and forests for the purposes of barter with Europeans. Probably *ground-nuts* is the only product of purely native agriculture that might be greatly developed, and already there is a fair export. The Portuguese colonists are establishing numerous plantations, worked by native and Asiatic labour. Of these the most successful so far have been the **sugar** plantations, found both round Delagoa Bay, in the south, and along the lower Zambesi (Sena district) and delta, where they are fostered by the Chartered Company. The output approaches 70,000 tons. **Cotton** also does well, both in the Zambesi valley, near Beira, and in Gaza Land, farther south, but the present output totals under 10,000 bales. **Sisal** plantations are found to thrive round Ibo (in Nyasa) and Quilimane, and the output is increasing. **Maize** is the most important grain crop, as it is in neighbouring territories, and the export is increasing. **Coco-nuts**, oil-seeds (castor oil and sesame) and tropical fruits are among the crops that are repaying development, and some millions of coco-nut palms have been planted, of which 95 per cent. are in the Quilimane district. The extensive mangrove swamps are exploited for *tanning bark*.

The mineral resources include **gold** and **copper** in the Mozambique Company's territory, which are at present exploited only on a small scale. There is also an important **coal**-bearing region near Tete on the Zambesi, which it is expected will shortly be yielding on a commercial scale.

Trade Relations.—The leading railways of the colony are the Lourenço Marques railway to Johannesburg in the Transvaal, and the Beira railway to Salisbury in Rhodesia. Recruiting in Portuguese territory for the Transvaal mines is allowed in return for an agreement that a certain proportion of British South African trade shall pass through Lourenço Marques instead of Durban. Over a million tons of Transvaal coal is shipped annually from this port. Chinde at the mouth of the Zambesi was the port at which goods and passengers were transhipped to river-steamers (which must be of shallow draft) and conveyed to Chindio, the terminus of the railway to Blantyre in British Nyasaland, but it is unimportant since the completion of the railway from Beira, which runs north to the south bank of the Zambesi, the river being spanned by an aerial ropeway. Numerous other railway projects (including a line from Delagoa Bay through Swaziland) are being carried out, and the country is a prosperous one, in which capital should find a good return. The bulk of the sugar and maize goes to Portugal, which supplies wines and miscellaneous foodstuffs and manufactures. France takes the oil-seeds, to the value of £1 million, for the soap and oil industry of Marseilles, the raw cotton and part of the sisal comes to the United Kingdom, to which also the small output of gold is consigned via Rhodesia and Cape Town. Imported cotton textiles come from the United Kingdom, and to a certain extent from Germany, Holland and British India. British mining machinery and construction material are im-

Portuguese India.

ported, besides Belgian rolling-stock, while the United States sends mineral oil and some railway material. At Porto Amalia, the headquarters of the Nyasa Company, and at the other northern ports, India supplies, through Indian merchants and retailers, a large proportion of the cottons and fancy goods.

General Information.—The official unit of coinage is the *escudo* (milreis), of which 10·8 escudos = £1. English coins are largely current in the south, and British-Indian rupees in the north. There are branches of the National Overseas Bank of Portugal at all important trade centres. Barclays Bank and the Standard Bank of South Africa have branches at Lourenço Marques and at Beira.

Mails reach Lourenço Marques in 20 days, Beira in 22 days. There is a British Consul-General at Lourenço Marques and Vice-Consuls at Quilimane, Mozambique and Tete.

PORTUGUESE GUINEA

Area and Population.—Portuguese Guinea (including the Bijagoz Archipelago and Bolama Island) has an area of 22,000 square miles (nearly three-quarters the area of Scotland), and a population of nearly 350,000, of whom all but a few hundreds are negroes. The foreign trade is valued at about £ $\frac{3}{4}$ million, and passes through the principal seaport, Bissau, or through the capital, Bolama, on the island of that name.

Position and General Conditions.—Portuguese Guinea, on the West African coast, is surrounded by French territory. It lies between 11° N. and 12½° N., and has a hot wet summer, and a winter dry season, of which the latter part is intensely hot. Part of the country is forested, but much of the interior is of the savannah type, where the natives rear cattle, which yield *hides* for export. The chief commercial products are those gathered from the forests or wooded country, and include *rubber*, *wax*, and *palm oil*, which went formerly to Germany, but are now sent to Portugal and Great Britain. French merchants are also interesting themselves in the country, which is favourably placed with regard to their entrepôt of Dakar.

The National Overseas Bank of Portugal has branches at Bissau and Bolama. The currency is that of Portugal.

PORTUGUESE INDIA

Area and Population.—Portuguese India includes Gôa, Damão and Diu, covering in all an area of about 1,600 square miles, and having a population of rather over half a million. The trade is worth about £1½ million, and is chiefly transit trade through Panjin (New Gôa), the capital of Gôa, and its outpost Mormugão, which are connected by rail with the general railway system of British India.

Réunion.

Position and General Information.—Gôa is on the Malabar Coast, south of Bombay, Damão is on the coast about 100 miles north of Bombay, while Diu is a small island off the southern extremity of the Kathiawar Peninsula. All three have **salt** works, and salt and salt fish are exported. In Gôa rice is grown for local use, and there are also **coco-nut** groves, both the nuts and **copra** being exported. There are **manganese** mines in Gôa. The unit of currency is the Indian rupee. The National Overseas Bank of Portugal (with a London office) has branches at New Gôa and Mormugão. At the latter port there is a British Consul.

PORTUGUESE WEST AFRICA

See **Angola**, p. 16.

PRINCIPIÉ & S. THOMÉ

See **S. Thomé and Principé**, p. 390.

PRUSSIA

See **Germany**, p. 200.

PUNJAB

See **India**, p. 255.

QUEENSLAND

See **Australia**, p. 28.

RÉUNION

Area and Population.—Réunion (or Bourbon) is a French Colony, administered by a Governor. The area is 970 square miles, and the population about 186,000, i.e. 191 to the square mile. Of this total 180,000 (96 per cent.) are Europeans, mainly of French descent, the coloured population including British Indians, besides immigrants from Madagascar, Africa, China and Zanzibar. The total trade averages £2½–3 millions (£15 a head), and is capable of great increase.¹

Position and General Physical Conditions.—Réunion belongs to the same group of islands as Mauritius and lies just over 20° S. of the Equator, and about 420 miles east of Madagascar. The climate is fairly uniformly hot, but not excessively so, and is not unhealthy. The

¹ For Map see Mauritius.

Rhodesia.

rainfall is sufficient to support a tropical forest growth, of which considerable areas remain uncleared. A heavy surf, and the occurrence of tropical cyclones, make the island dangerous for shipping, although Pointe-des-Galets harbour is safe when once entered.

Human and Economic Conditions.—As in Mauritius, the staple crop of Réunion is **sugar**, and large quantities of *rum* are manufactured. Although the island is larger than Mauritius, the sugar crop is less than one-third of that in the neighbouring island, where there is a far larger supply of coolie (British Indian) labour. The crops of secondary importance are *manioc*, *coffee* and *vanilla*. There are good motor-roads, but only 80 miles of railway, running along the coast from Pointe-des-Galets, the principal port, to St. Denis, St. Pierre and St. Paul, the chief towns.

Trade Relations and General Information.—The trade of Réunion passes through Tamatave (Madagascar) or Port Louis (Mauritius). The produce of the island is marketed in France, from which manufactured articles are sent in return. Rice and other food-stuffs are imported from India and Madagascar. The chief banking establishment is the Bank of Réunion. There is cable connection with Mauritius and Madagascar. Mails arrive in 34–36 days. There is a British Consul at Réunion.

RHODESIA

Area and Population.—Rhodesia, formerly administered by the British South Africa Company, has, since 1923, passed under the control of the Crown. While Northern Rhodesia is administered by a Governor as a Crown Colony, Southern Rhodesia has been granted responsible government. The territory covers about 440,000 square miles, i.e. it is nearly as large as the Union of South Africa, and has a population of 2·1 millions, of whom under 50,000 are Europeans. The native population is fairly evenly divided between Northern and Southern Rhodesia, which lie north and south of the Zambesi River respectively, but 42,000 of the Europeans, i.e. over 80 per cent., live in Southern Rhodesia. The total trade is now about £18 millions, of which five-sixths is to and from Southern Rhodesia, although this includes goods in transit to the value of over £1 million. Gold, which in 1913 represented about four-fifths the total export, represented only about half in 1919, and one-third in 1927; this is because considerable progress has been made since that date in the development of agricultural and other mining industries. The administrative centre of Southern Rhodesia is Salisbury, and of Northern Rhodesia, Livingstone, situated where the railway crosses the Zambesi. Salisbury and Bulawayo, each with about 20,000 inhabitants, are the only towns of any size. In Northern Rhodesia the Mazabuka and Lusaka districts to the south and north of the Kafue valley, and Fort Jameson, near the Nyasaland Frontier, are centres of development.

Position and Climate.—Rhodesia stretches from the borders of the Transvaal in the south to the Belgian Congo in the north, approximately from latitude $22\frac{1}{2}^{\circ}$ S. to latitude 8° S.—i.e. a similar range of latitude to the Indian Dekkan. Hence it enjoys a powerful tropical sun,

Rhodesia.

with the rays vertical twice during the year, but owing to the elevation of the greater part of the land the air itself remains relatively cool and fresh, and the climate is a healthy one in which European children thrive. The rains, which are only moderate (20 to 40 in.), occur in the five (southern) summer and autumn months, November to March, and during the rest of the year as a rule cloudless skies and brilliant sunshine are enjoyed. In Northern Rhodesia, which lies nearer the Equator, it is necessary to ascend to greater altitudes to find a pleasant climate than in Southern Rhodesia. In the low valleys excessive heat is experienced, and tropical diseases are common, such valleys also harbouring the tsetse fly, whose bite is fatal to cattle and horses.

General Physical Conditions.—Rhodesia forms part of the great South African tableland, and is on the whole a rolling, but not a mountainous country. The greatest elevations are found in the north, between the Zambesi and Congo basins; in the north-east, between the Zambesi basin and Lake Nyasa; and in the south-east, between the Zambesi and Limpopo basins. The Zambesi is broken by the great Victoria Falls, where the water tumbles 370 ft. into a gorge forty miles long. The valley below this gorge is one of the low-lying, unhealthy regions, as are the tributary valleys of the Kafue and Loangwa in Northern Rhodesia, and the belt sloping to the Limpopo in the extreme south-east of Southern Rhodesia. During the prolonged dry season the larger rivers become very shallow, while the smaller dry up altogether.

Over the whole country, owing to the moderate rains, grasses are more characteristic than trees, i.e. Rhodesia is a savannah, rather than a forest country. Trees are spaced out as in an orchard, or dotted about singly or in clumps as in a park, the baobab, palms and acacias being conspicuous among them. Only in the valley bottoms is there a thicker woodland, with dense undergrowth. Big game, including lions and elephants, is still abundant, especially in Northern Rhodesia.

Human and Economic Conditions.—The native peoples, who belong to the Bantu race, have settled down to peaceful ways and submitted to British control and taxation. The majority live in accordance with tribal custom, and maintain themselves by simple agriculture (the women's work) and cattle rearing. The unoccupied territory is so vast that the existence of this native population is no obstacle to the colonization and development of Rhodesia as a white man's country. In and about the European settlements the natives perform all necessary manual labour, both on the farms, in the mines, and as domestic servants, carriers and the like: they are thus a valuable economic asset, and no labour problem has yet arisen to hinder development.

Although a great variety of crops will grow in Rhodesia, the staples of the European farmer are at present two only, **maize** and **tobacco**. Maize was originally grown only for local consumption, there being a large demand for this grain as food for the thousands of labourers in the mines. The high cost of transport to the distant seaboard would seem to preclude an export of so bulky an article, but the quality of the maize is so excellent that it finds a market in Australia and elsewhere for seed purposes. A beginning, too, has been made of pig-breeding, since maize can be profitably fed to pigs: bacon factories have been established. Rhodesian tobacco is

Rhodesia.

of high quality and finds a ready market in England, there being now nearly 30,000 acres planted, yielding over 19 million lb. Scarcity of fertilizers and the generally difficult conditions led to a setback during the War, but the subsequent very rapid expansion has created a difficult situation owing to

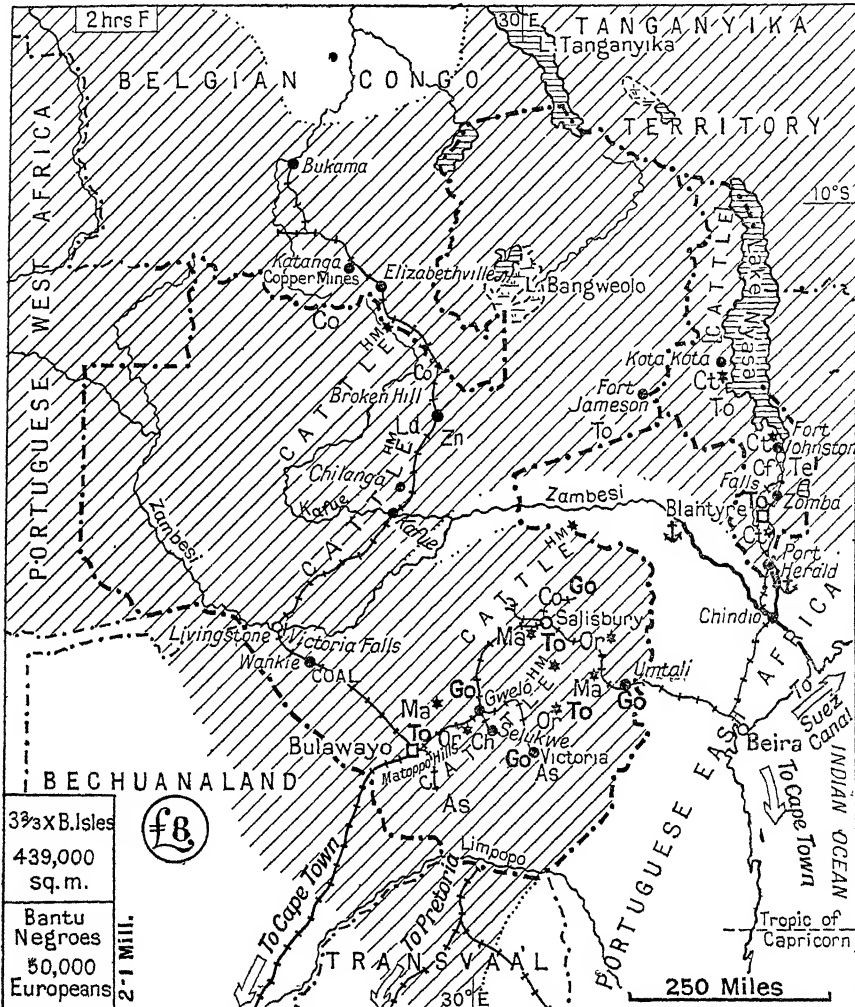


FIG. 73.—RHODESIA AND NYASALAND.

the uncertainty of marketing the crop. The Virginia leaf is grown, and is in competition therefore with American tobaccos, to which manufacturers and smokers have so long been accustomed. A large number of fruits do well in Rhodesia, and among them **oranges** reach a standard of perfection that has led to a rapid extension of the newly established export trade.

Rhodesia.

An important irrigation dam across the Mazoe River, 20 miles north of Salisbury, was completed by the Chartered Company, and waters large orange groves. The number of cases shipped reached 130,000 in 1927, the output being one-seventh of the total for British South Africa. *Cotton* has succeeded in the Umtali District and round Fort Jameson (Northern Rhodesia), but the output is small.

The abundance of natural grasses, and the absence of any cold season, make Southern Rhodesia an ideal **cattle** country. Very little manger feeding is necessary, and now that local needs are more than supplied, there is an important export trade. At first the market was Johannesburg, which still takes some of the slaughtered cattle, but of much greater importance is the great Katanga mining region across the frontier of Belgian Congo, to which both live and dead meat are moved in large quantities. The opening of this market greatly stimulated the industry in Northern Rhodesia, which suffers from its remoteness. A fair quantity of chilled carcasses are shipped from Southern Rhodesia via Beira. *Hides* are also an important export. Great attention is paid to the quality of the herds, and a dairying industry is well established. Arable farmers are advised to extend their range of crops, growing especially legumes in rotation, and feeding these to stock. In this way the land benefits by the restoration of nitrogen, and by the farmyard manure, while the dairying and slaughtering position is also strengthened.

The development of the great *mineral* wealth of Rhodesia is still only in its infancy. **Gold** occurs very widely in reefs, especially in the elevated belt forming the south-eastern watershed of the Zambesi, near Salisbury, Gwelo, Bulawayo, Umtali and Victoria. Since 1890, the output has totalled nearly £75 millions, and there are some 500 mines in operation. The output averages £3 millions. **Copper** until recently ranked next to gold in Southern Rhodesia, but the output is now negligible, and the secondary minerals are **chrome iron** ore at Selukwe, and **asbestos** near Victoria and south-west of Bulawayo, which together give an output of £1 million annually. It is believed that the Bwana Mkubwa district in Northern Rhodesia, about 20 miles south of the Belgian Congo, may prove another Katanga. There is active exploitation of *copper*, *lead* and *zinc* (at Broken Hill), and in the Lomagundi district there are *mica* mines which are exploited. The Wankie **coal**-field is exploited for local use on the railways and at the mines, and a million tons were mined in 1927. The Congo railways and Beira also purchase coal.

The railway—part of the “Cape to Cairo” system—has played a great part in enabling these mineral properties to be developed. Entering the country from Bechuanaland in the south-west, it runs to Bulawayo and there divides into two main lines. The one runs north-eastward through Gwelo to Salisbury, throwing off branches to the more important mines. From Salisbury a line runs eastwards through Umtali and enters Portuguese territory, terminating at the port of Beira, through which the overseas trade of Rhodesia is carried on. The second line runs north-westward through an undeveloped country, passes the Wankie coal-field and crosses the Zambesi close to the Victoria Falls, thence it again traverses an undeveloped country following a north-easterly and then a northerly course through Broken Hill. Finally, it passes into the Belgian Congo, through the exceedingly rich copper mining territory round Katanga. The total length of the

Rumania.

system is about 2,500 miles, and since the traffic is necessarily small in a thinly populated country, freight charges are very high. There are large railway workshops at Bulawayo.

Trade Relations.—Rhodesian produce, with the exception of the cattle and meat mentioned, goes mainly to the United Kingdom. All goods which the mother country can supply are also purchased from Britain, including textiles, apparel, boots and shoes, iron and steel goods, machinery, and some beverages and provisions. Timber comes from Sweden, petroleum from the United States, tea and gunny bags from India, sugar from the Union and Portuguese East Africa, flour and butter from Australasia, and miscellaneous supplies from the Union of South Africa. Goods from large steamers must be lightered at Beira.

General Information.—Barclays Bank and the Standard Bank of South Africa have branches in Bulawayo, Salisbury and elsewhere. Mails reach Rhodesia in 20 days. British coins, weights and measures are in use.

RIO DE ORO

See **Fernando Po**, p. 173.

RUMANIA

Area and Population.—The Kingdom of Rumania has now an area of approximately 122,000 square miles (rather larger than the British Isles) and a population of 18 millions. The result of the War was to add some 70,000 square miles of territory and 9 million people to the Rumanian Crown, at the expense of Hungary (Transylvania and the Banat) and of Russia (Bukovina and Bessarabia). Although in these territories Rumanians are in the majority, there are yet important minorities of Magyars, Germans, Russians and Bulgars, with in addition Osmanli Turks in the Dobruja, a territory extended at the expense of Bulgaria during the last Balkan War. There are also large numbers of Jews in the towns, especially in the newly acquired territories. At current exchange the 1920 trade of Greater Rumania was £50 millions, but that of the old Kingdom was also about £50 millions, or over £7 a head. Hence, at a conservative estimate, the trade, once normal conditions are restored, should not fall short of £100 millions. The highest figure at present realized has been £86 millions in 1927, or nearly £5 a head, and the average for 1928 and 1929 was only £72 millions. Since three-fourths of the population is dependent upon agriculture, a bad grain harvest wipes out their purchasing power, and trade fluctuations must be expected. The only large cities are Bucharest, the capital, with over 300,000 inhabitants, and Kishinev (Chisinau) in Bessarabia with over 100,000. Czernowitz (Cernauti), the chief centre of Bukovina, Braila and Galatz, the Danubian ports of Rumania, Jassy in Moldavia, Cluj in Transylvania, Temesvar in the Banat, are also of importance as markets and distributing centres for their respective regions. Broadly speaking, Rumania is a grain country, with (under normal circumstances) a large surplus of this essential commodity to offer in exchange for the manufactured goods of Central and

Rumania.

Western Europe. The Rumanians claim descent from the ancient Dacians, whose blood was mingled with that of the Roman colonists, and the Rumanian language is a derivative of Latin. It contains, however, many Slavonic words, and the people have undoubtedly a Slavonic strain. The greater number of Rumanians are adherents of the Eastern Orthodox Church, but there are large minorities of Greek Catholics, Roman Catholics, Protestants and Jews. About half the population is illiterate, although in this respect matters are improving.

Position, Climate and General Physical Conditions.

—Rumania lies in East-central Europe, to the north of the Balkan Peninsula. It extends from latitude $43\frac{1}{2}^{\circ}$ N. to latitude $48\frac{1}{2}^{\circ}$ N., or roughly, from the latitude of Marseilles to that of Paris. The climate is, however, more extreme than that of France, and the Danube is closed by ice during January and February; the summers are as hot as those of Spain, while the rainfall is very moderate, and occurs chiefly in summer. There is a danger of drought, so that the harvest sometimes fails from this cause.

The River Dniester forms the frontier between Rumania and Ukraine, but with this exception, the whole country drains to the Danube. A roughly triangular mountain mass, formed by the Eastern Carpathians (to the east), the Transylvanian Alps (to the south) and the Bihar Mountains (to the west), and enclosing the Transylvanian plateau, forms the core of the country. The Szamos and the Maros, draining Transylvania northward and westward respectively, open out route-ways to the Hungarian Plain, where they join the Theiss, which in its turn joins the Danube. This river then enters Wallachia by the Iron Gate, a gorge between the Transylvanian Alps and the Balkan Mountains, and subsequently forms the southern frontier of the country for a considerable distance. Between the Transylvanian Alps and the Danube lies the Wallachian Plain, hilly to the north, but level and with a rich, deep soil to the south. Across it flows the Alt or Oltu, which rises in Transylvania, cuts the "Red Tower" gorge through the mountains, and finally joins the Danube. At Czernavoda the Danube makes a great bend northwards, and its marshes and braided network of backwaters form an eastern boundary to Wallachia, separating it from Dobruja. The latter is a limestone plateau, arid and steppe-like in its aspect.

At Galatz the Danube turns sharply eastwards once more, being joined near this point by the Sereth and the Pruth, rivers of which the long trough-like valleys form the characteristic feature of Moldavia and Bessarabia, the rolling country which lies between the Eastern Carpathians and the Russian Plain. Not far below the confluence of the Pruth, the Danube splits up into several channels, forming a great delta on the shore of the Black Sea, the Sulina mouth being the only one which is kept free of the accumulating silt.

Human and Economic Conditions.—The plains and vales all round the central mountain mass had originally the character of almost treeless steppe, and are now sown with vast fields of **maize, barley and wheat**, of which a large surplus is available for export. Greater Rumania will rank second to Argentina as a maize-exporting country, and should stand fourth or fifth among the countries supplying the world with wheat in bulk. Braila and Galatz, both reached by ocean-going steamers, are the great grain ports, having a favourable position for the collection of the product alike

Rumania.

from Wallachia, Moldavia and Bessarabia, although formerly the latter region was served by Odessa. The wheat and maize of the Banat and the Maros valley and the maize of Transylvania had their natural market formerly at Temesvar and Arad, as intermediate centres for Buda-Pest, en route for Austria and Germany, and continue to move in this direction. The expropriation of the large landed proprietors and the division of land among the peasants will have an effect on production difficult to gauge. The landowners undoubtedly farmed more scientifically than the peasants, and were better able to employ agricultural machinery: hence, although the acreage has increased there is still under-production.

Minor crops are *sugar-beet*, *tobacco* and *fruit*, including plums (for prunes) in the hilly districts. The *vine* is also very generally cultivated in the hilly parts of the country, but the wine is not of high quality and is usually consumed locally. Bessarabia is a noted orchard country. Some *silk* is cultivated in the Banat, and *oats* and *potatoes* are locally important in the upland regions.

The Carpathians (including the greater part of Bukovina), the Transylvanian Alps, and the Bihar Mountains are heavily forested, and the **timber** industry is very important. Oak and beech on the lower ridges, pine and fir at greater elevations, are the chief trees. Timber-working is important in the Banat, and a great deal of timber is also floated down the Sereth and other rivers to the Danube. There is need for a more systematic working of the forests, and an opening for the introduction of manufactures of wooden goods. The Levant, Hungary and Bulgaria are the chief markets at present.

The acorns and beech-mast afford pasture for *pigs*, of which there are over 3 millions, and since there is abundance of maize, the bacon and lard industry is one capable of development. The mountains afford much natural pasture, and parts of the plains are under hay, so that **cattle-rearing** receives considerable attention, and a meat industry already exists. The number of cattle is $4\frac{1}{2}$ millions, and there are 13 million sheep and $\frac{1}{2}$ million goats. *Horse-breeding* is important on the plains and there are 2 million horses. As is usual in grain countries, poultry are very numerous and *eggs* are an article of export.

The mineral wealth of Rumania has been considerably increased by the acquisition of Transylvania and the Banat. In the former there are **gold** mines in the south-east of the Bihar Mountains (Zalatna), this metal being in association with copper, silver and lead. There are also *lignite* beds producing 3 million tons and *iron* ore on the northern slopes of the Transylvanian Alps, and there are ironworks at Vajda-Hunyad. Of much greater importance, however, are the **iron** and **coal** mines of the south-east of the Banat, which, being found in association, have given rise to a large iron and steel industry centred at Resiczabanya and at Nadrag in the Temes valley. There is an output of 63,000 tons of pig-iron and 117,000 tons of steel.

In old Rumania, there is a little coal mined on the southern slopes of the Mountains, but the most valuable mineral is **oil**, which is said to underlie the whole of the mountain foreland. At present the chief output is from the region to the north of Ploesci, but there are also producing wells in the Departments of Buzeu and Bacau farther east and north. The pre-war output reached 12 million barrels, the country standing fourth on the

Rumania.

list of large producers, and the output has now risen to 30 million barrels, although Rumania is now only sixth on the list of producing countries. Foreign (including British) capital is largely employed in developing the oil properties. There are pipe lines from Baicoiu, on the main field, to Constantza and Braila, and to Giurgiu on the Danube. There are useful salt deposits in Moldavia, and *phosphates* in Bessarabia.

The industries of Rumania, apart from the iron and steel works (formerly Hungarian) already mentioned, are limited to flour-milling (4,000 mills), oil-refining, and some small manufactures of beer and spirits, textiles, food-stuffs, parquet flooring, etc., having local importance only.

Trade Relations.—Rumania buys from abroad a considerable quantity of cotton and other textiles, besides iron and steel goods, and especially agricultural machinery, tools and flour-milling machinery. As regards general manufactures, Germany, Czechoslovakia and Austria, by reason of their favourable position, are able to supply the greater part of what is needed. In the case of agricultural machinery, however, British traction engines and threshers are usually bought, while the United States finds a ready sale for reapers and binders. This is, therefore, a market which should be cultivated, as with the increase of territory there has come a great increase of agricultural land. The field is carefully worked by German and Czech trade agents, who are ready to give the long credits and other facilities demanded by a farming population.

The sea-borne trade of Rumania is divided fairly evenly between Braila, Galatz and Constantza, the latter being the chief oil port. Situated in the Dobruja, it is always ice-free, and lies directly east of Bucharest, with which it is connected by rail, via the great bridge of Czernavoda (destroyed during the War and now rebuilt). These ports also serve Transylvania, by the route that crosses the mountains to Brasso (Kronstadt). Among the river ports along the Danube may be mentioned Giurgiu, opposite the Bulgarian port, Rustchuk, and Turnu Severin, just below the Iron Gate. The last named has ship-building and repairing yards for river craft. The Danube is canalized through the Iron Gate, where there are rapids which are difficult to navigate. About 1½ million tons of freight are carried on this river to and from Rumanian ports, three-fourths of the movement being up-stream—mainly maize and oil.

The railway system of Rumania is controlled and in large part owned by the State, and a comprehensive scheme of improvement and extension was interrupted by the War. Over 8,700 miles are open for traffic, but there is still a deficiency of rolling stock, and lack of transport efficiency is hindering Rumania's recovery, although construction is now proceeding.

An International Commission, having its seat at Galatz, controls the navigation of the Danube. The Sulina bar, now properly dredged, allows vessels drawing 24 ft to proceed to that port, and there is a minimum depth of 18½ ft. to Galatz.

General Information.—The unit of currency is the gold *leu* (of 100 *banî*), of which 813·6 *lei* equal one pound sterling. The smallest gold piece actually coined is of 5 *lei*. The National Bank of Rumania has the power of issuing notes, the existing currency being mainly paper. The Bank of Rumania has a London office, while the Banca Romaneasca has many London agents. Mails reach Rumania in 3 days. There is a British Consul-General (who is also Commissioner for the Danube) at

Russia.

Galatz, a Consul at Cluj, Vice-Consuls at Braila, Sulina, Bucharest and Constantza, besides a British Commercial Secretary at Bucharest. Rumania is a Member of the League of Nations.

RUSSIA

Area and Population.—The Union of Soviet Republics includes both federated and allied territories which have adopted the Soviet form of government. The total area is $8\frac{1}{2}$ million square miles, and population 147 millions. In the following pages European Russia and Siberia are dealt with, covering $7\frac{3}{4}$ million square miles, with 134 million people. Trans-Caucasia and Turkestan are treated separately.

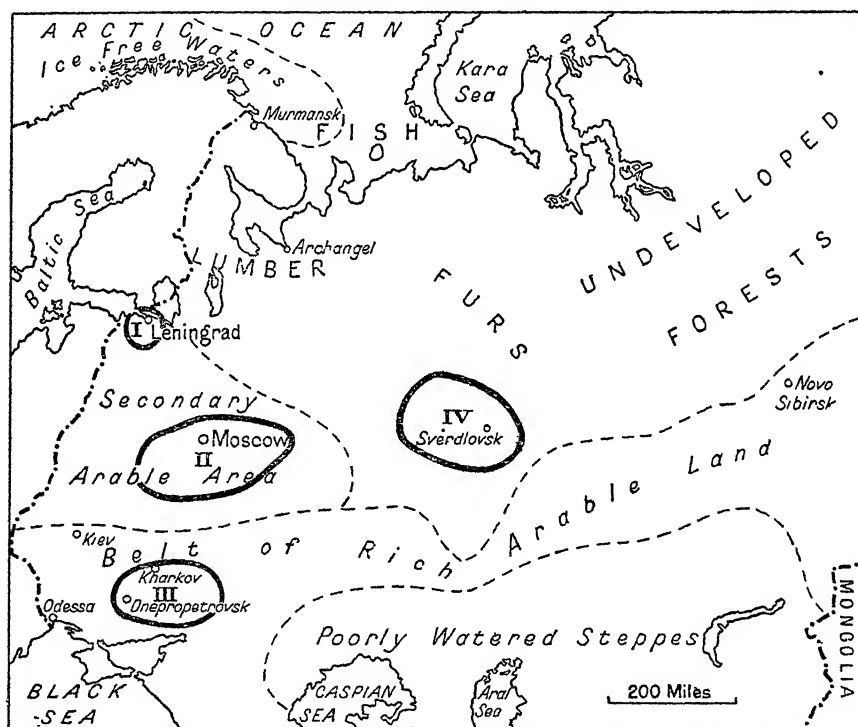


FIG. 74.—RUSSIA: AGRICULTURAL BELTS AND INDUSTRIAL AREAS.

Trade and industry were brought almost to a standstill by revolution and civil war, and although they are slowly recovering, statistical information is not readily available. The largest of the Soviet Republics forming the Union is the Russian Socialist Federated Soviet Republic, which contains eleven Autonomous Republics and eleven Autonomous Regions: geographically it includes all European Russia save White Russia, the Ukraine and Trans-Caucasia: and all Asiatic Russia save the former Turkes-

tan. The centre of government is Moscow, a busy industrial city, with over 2 million inhabitants. White Russia, with the capital at Minsk (130,000 inhabitants), is the smallest of the Federated Republics, and is adjacent to Poland, Lithuania and Latvia. The Ukraine, notable alike for agriculture and industry, is perhaps the wealthiest of the Republics in relation to its area: the capital is Kharkov, with 417,000 inhabitants, and it includes within its boundaries the ancient and historic city of Kiev, which with over $\frac{1}{2}$ million inhabitants is the third largest city in the Union. The second largest is Leningrad, with over $1\frac{1}{2}$ millions, commanding the short length of Baltic seaboard which still remains Russian, and a very active industrial centre. Other important cities are Odessa, the chief port of Ukraine, on the Black Sea (400,000 inhabitants): Rostov-on-Don, the port of the Sea of Azov (300,000 inhabitants); Saratov, at an important crossing of the Volga, with 212,000 inhabitants; Dnepropetrovsk (formerly Ekaterinoslav) in the industrial Ukraine; Nijni Novgorod, Kazan, Samara and Astrakan, all on the great Volga highway; Krasnodar (formerly Ekaterinodar) in North Caucasia; Novo-Sibirsk, the metropolis of Western Siberia, and Tula, in the Moscow industrial region. All these have populations of 150,000 and upwards, and there are thirteen more cities with over 100,000 people. About one-third of the population of Soviet Russia are of Asiatic stocks (including Tartars, Khirgiz and others in European Russia), and are Mohammedans: there is also a large Jewish minority, besides the population sprung from the large German colonies on the Volga and elsewhere. The foreign trade may be roughly estimated at £170 millions or over £1 a head: the internal trade is, of course, very much greater, since the increasing output of the factories can be absorbed within the Union, and the great diversity of natural regions determines a mutual exchange of agricultural, forested and mineral products between them.

The systematic application of science to agriculture, forestry, pisciculture and industry under the new régime, together with the increased educational advantages at the disposal of the mass of the people must eventually greatly increased production, since in Siberia especially there are enormous undeveloped resources.

Position, Climate and General Physical Conditions.

—European Soviet Russia includes roughly the whole basins of the Volga, Don and Dnieper and the part of the Great European Plain which drains to the White Sea and Arctic Ocean. Thus it lies open to the Arctic seaboard, to the north shore of the Black Sea, to the Sea of Azov, and to the Caspian, into which the Volga flows, while a very small portion of the Baltic coast in the neighbourhood of Leningrad also remains Russian. The best of the Baltic ports are lost. Since the bounding latitudes are 45° N. and 70° N. there is a great range of climates. Within the Arctic Circle there is a brief, cool summer of five or six weeks, while for the rest of the year the region is frost-bound, and usually under snow. Yet in the north-west of this region, the last eddies of the Gulf Stream Drift keep the sea and the shore free from ice, so that it was possible to create the port of Murmansk, which remains open while Archangel, much farther south, on the White Sea, is frozen up. South of this so-called "tundra" region, the basins of the Dwina, Petchora and Kama (an affluent reaching the Volga from the north) have a climate marked by the length and severity of the winter months, yet having quite a warm summer. Here are the

Russia.

great coniferous forests, so valuable for their timber. South of these forests is the Upper Volga basin, this river flowing eastwards from the Valdai Hills to its junction with the Kama. In this region, which feels the influence of the Baltic Sea, the summers are yet warmer, but the winters are less severe, and there is a more plentiful rainfall than farther north. Here the natural vegetation is a mixed forest, in which oak, beech, elm and other deciduous trees are important. Much of the region has been cleared for agriculture, but it still has valuable timber resources. Both here, however, and in the Upper Dnieper basin, which is of the same character, there is much swampy ground, owing to the occurrence of a heavy ill-drained clay soil. Stretching diagonally from the Carpathian Mountains to the Middle Volga basin is the famous Black Earth region, of which the best developed part is in Ukraine. The climate of the Ukraine is much more extreme than that of western Europe: the summers are intensely hot (e.g. as in Spain), the winters as cold as those of Finland. Bitter winds sweep across the country in the winter months, and remove the snow, which does not lie to any great depth. Rain comes in spring and early summer, so that although the total amount is small (under 20 inches) it is all available for the crops. The low rainfall, light soil and the strong winds are all hostile to tree growth, so that in its natural state the region was part of the Russian steppe, i.e. an open grassland, with very restricted patches of woodland. The severe winter determines that at that season all Russian rivers are frozen over, while the melting of the ice in the spring, coinciding with the spring rains, leads to dangerous floods; hence navigation is intermittent, and the rivers are apt to shift their beds and break through their banks. The chief river of the Ukraine is the Dnieper, which flows from the Pripet Marshes (in Soviet Russia) to the Black Sea: on its banks stand Kiev, Ekaterinoslav, and the secondary port of Kherson, for the river is navigable, although rapids, shifting sandbanks, and periods of low water are serious drawbacks, in addition to the winter freezing. The Bug is a smaller river, farther west, and having at its mouth the port of Nikolayev, formerly a naval arsenal, and a strong competitor of Odessa. The latter stands on an open bay, and not on a river mouth, being consequently ice-free, but it has an exposed situation, and improvements are planned. Thus the seaboard of the Ukraine, although short, is important, and provides a natural and convenient outlet for the produce of the country. The soil of the Ukraine is unsurpassed for fertility: nowadays the steppe is ploughed and grain grows instead of grass. There remains for description only the Lower Volga basin, from the elbow bend at Tsaritsin (now Stalingrad), where it approaches the Don, to the great delta by which it enters the Caspian Sea. This is a very low-lying region, with excessive summer heat and drought, so that the sandy soil is saline, and the steppe vegetation is of a poor type. The Volga here forms a braided channel between innumerable shifting sandbanks, and navigation is rendered very difficult. For a short season in winter the lower river is ice-bound. This arid south-eastern lowland lies farther south than the British Isles, in the latitudes of France.

In the Crimean peninsula about two-thirds of the country is a level plain, with a climate of the mainland type, somewhat tempered by having water on either hand, while farther south a mountain range runs parallel to the coast, and shelters a sunny strip which may be called the Russian Riviera. On

Russia.

this strip, facing south, and cut off from the piercing north-east winds, the climate is that of the Mediterranean, and the characteristic Mediterranean cypresses, walnuts and evergreens clothe the hillsides. On the northern slopes of the mountains there are beech-woods, while on the plains there is a steppe vegetation of grasses (with wild tulips and lilies growing in spring), varied by woodlands in the river valleys. Here there are many health and pleasure resorts.

Siberia stretches right across Asia for a distance of 6,000 miles, and the greater part of it lies north of latitude 50° N. Hence the climate is of the so-called Continental type, marked by extremes of heat and cold in summer and winter, a moderate summer rainfall, and an autumn snow-fall. The prevailing winds are westerly. The most intense winter cold is experienced in the north-east, in the Lower Lena basin, a region practically uninhabited. Practically the whole country has a January average temperature of over 32° below freezing point, so that rivers and lakes are all frozen, and coasts are ice-bound.

The most important modifications of this climate are as follows. In the north, there is a large area within the Arctic Circle, where the winter is very prolonged, and genial weather is limited to a few weeks at midsummer. This region is negligible from the economic standpoint. In the south-west (the Steppe Provinces) the hottest summers and the lowest rainfall occur, the climate changing from semi-arid to arid with increasing distance south. In the east, the monsoon wind system occurs, and the winter wind from the interior renders the coastal belt unduly cold, while the summer winds moderate the expected heat.

Western Siberia is a vast plain drained to the Arctic Ocean by the great rivers Ob and Yenesei. The former has a very important navigable tributary, the Irtish, which drains the Steppe Provinces, the latter is joined from the east by the upper Tunguska, flowing out of Lake Baikal. Central Siberia is a rolling country, rising to mountains in the south and round Lake Baikal, near which lake the Lena takes its rise, to flow first north-east, and then north to the Arctic Ocean. Eastern Siberia is also mountainous, but is trenched by the broad valleys of the Amur and its tributary the Ussuri.

Siberia is most unfortunate in her rivers, great though they are. The lower reaches of the Ob, Yenesei and Lena are still frozen when the upper reaches, being farther south, thaw in spring. Consequently the waters are dammed up and disastrous floods result. The lower Ob in particular, flowing as it does through a nearly level region, divides into a maze of intricate channels winding through a vast swamp. The Yenesei offers a more favourable waterway, but to reach its estuary from Europe ships must pass through the Kara Strait and Kara Sea, which are often encumbered by ice-floes even in summer, and at best are open for only a few weeks. The Amur again, heading in its middle course for the Japan Sea, makes an elbow bend in latitude 47° and turns north-eastwards to enter finally the remote Sea of Okhotsk. The cold winters determine that the eastern shores are ice-bound each year, and they are, moreover, bounded by high mountains with the fortunate exception that the Ussuri valley opens an easy route to the bay on which Vladivostok stands.

To the south of the frozen plains of the tundra, Siberia is clothed with a vast forest, the *taiga*, consisting chiefly of coniferous trees—pine, spruce, larch and fir. In the centre and east it extends to the mountains, where

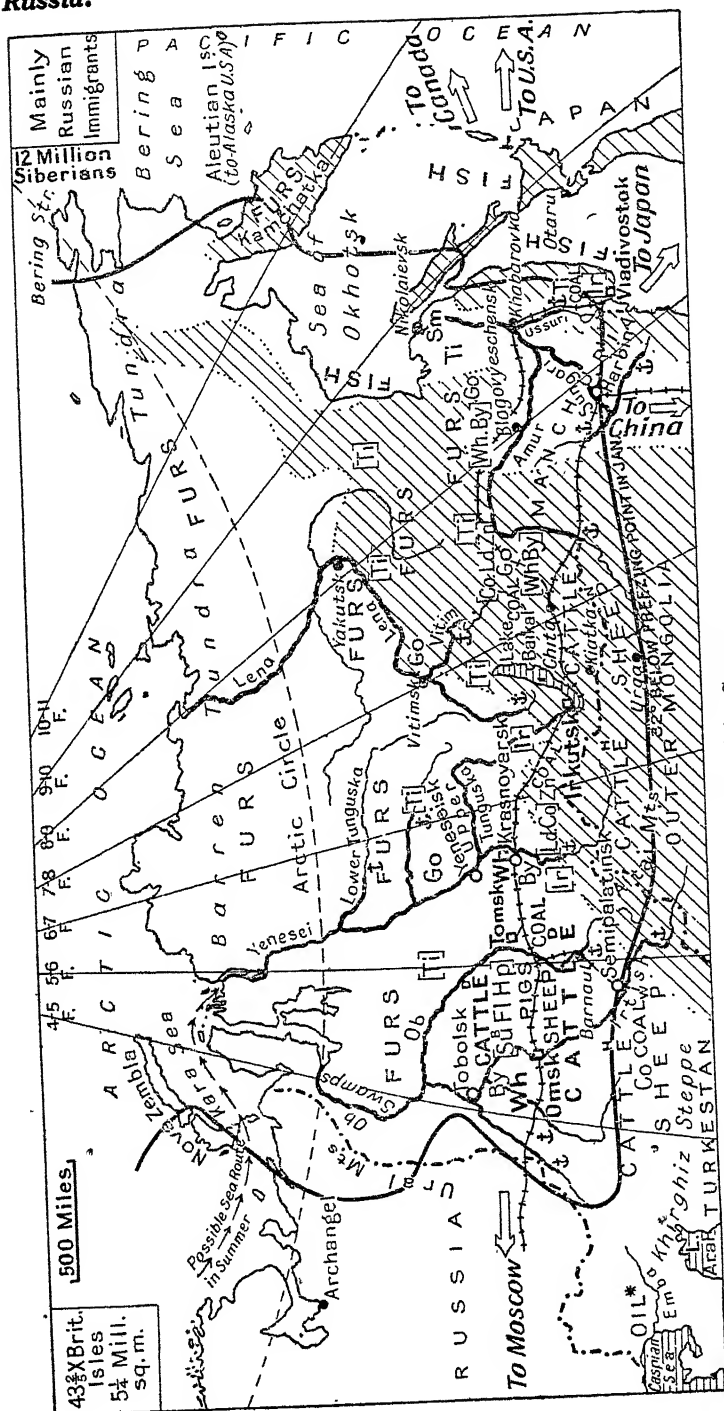


FIG. 75.—SIBERIA.

there is an admixture of such trees as beech, oak and maple. In the south-west, at about latitude 55° – 58° N., this forest thins out, the soil and climate favouring the growth of a rich prairie or grass-steppe, with scattered

woodland areas. Here the belt of rich Black Earth and productive Brown Soils is prolonged from European Russia.

Farther south still, the increasing heat and diminishing

Russia.

rainfall result in a scantier vegetation of coarse grasses and small-leaved, woody shrubs and trees, such as the saxaul and tamarisk, varied by poplar groves and reed swamps along the watercourses. Beyond the plains, along the foot-hills of the Altai and other mountains, there is another belt of rich park-like steppe, and higher up the mountains there are forests and meadows such as are familiar in the European Alps.

From the physical standpoint Siberia and Canada have much in common: there are the same forest products and the same possible range and wealth of crops. But there is in Siberia no parallel to the Great Lakes and St. Lawrence system, opening a highway into the country and moderating the rigours of the climate, nor has Siberia as neighbour a great progressive country like the United States, to name only two of the factors favourably affecting the development of Canada.

Human and Economic Conditions.—The Russian Union of Republics is in the first instance an agricultural country, and produces a surplus of agricultural wealth. Cereal crops have always been of first importance, and **rye** is the staple of peasant food over practically the whole country, save in the tundra of the far north, and on the arid plains of the south-east, where nomad tribes live on a milk and meat diet. In the Siberian forests, too, there are Asiatic peoples who live by the chase, and whose food is mainly fish and meat. The length of the winter in the north, and the lack of rain in the south-east limit the region where **wheat** is of outstanding importance to a broad belt running through the Ukraine Republic in a north-easterly direction, until it terminates in Western Siberia against the foot-hills of the Altai Mountains. It coincides roughly with the chernozym (black earth) and chestnut brown soil belts, and forms the principal zone in which there is a large exportable surplus of grain. The Ukraine section is the most favoured of all, both because there is less likelihood of the failure of the essential spring rains (which may occur in the Volga basin section) and because the belt is there adjacent to the Black Sea coast and grain can readily be shipped from Odessa and other points: the Don Basin, with its outlet at Rostov, is likewise important, while in Western Siberia production is limited by the long rail haul to market. The wheat crop is on an average equal to that of rye (20–23 million tons), but the export is much less than before the War, partly owing to the new system of land-tenure, under which the peasants grow more crops for their own use, and partly owing to the greater consumption at the growing urban centres. The same diminution has occurred in the **sugar-beet** crop (yielding $1\frac{1}{4}$ million tons of sugar), which is extensively grown in the western section of this rich agricultural belt, especially in the Ukraine. It should be noted that the belt of rich soils, short (though severe) winters, and light rains, includes the North Caucasian area, east of the Sea of Azov, which is therefore part of the important grain belt. *Oats* and *barley*, like rye, are less exacting in their climate and soil requirements than wheat, and are therefore grown very widely, not only in the wheat belt, but in the centre and north of Russia in Europe, and in the forest clearings of Siberia. *Maize* is increasingly grown in the Ukraine, while *millets* are a valuable supplementary cereal in the grain belt, and especially in the drier sections.

The same belt of country includes a very large area devoted to *oil-seeds*, including especially *sun-flower* seed, *linseed* and *hemp-seed*. The growing of *flax* (340,000 tons) and *hemp* (500,000 tons) for their fibres is important

Russia.

in Central and Western Russia, in the belt running from the borders of Latvia and Estonia (Pskov Province), by Moscow to Nijni Novgorod. A considerable proportion of the output is consumed by peasant industries, and the flax export is still relatively small. **Potatoes** are, like rye, a crop of universal importance, especially in the less favoured regions, including the far north, and besides yielding a food-stuff, they are the basis of large-scale alcohol and starch industries. *Tobacco* is very generally grown, and is of special importance in the Kozlov district and in Ukraine.

Horses, cattle and sheep are very important on the open steppe-lands, and *pig-breeding* is on the increase. The greater part of the meat and dairy-products are absorbed by the large towns, but where towns are fewer (e.g. in Western Siberia) there is a surplus of *butter* and *eggs* for export. Dairying and market-gardening take a local importance round all the great cities, e.g. Leningrad and Moscow, while *fruit-growing* is especially important in the valleys of the great south-flowing rivers, and in the Crimea.

Industries derived from agriculture, notably flour-milling, oil-seed pressing, sugar-refining, tobacco manufacture, jam making, preparation of alcohol, tanning and leather dressing, manufacture of boots and shoes, soap and tallow, are all important in the large towns, besides industries serving the farmer, such as the manufacture of tools, implements and agricultural machinery, of fertilisers and cattle-cake. The comparative dearth of horses has led to an increase in the use of machinery, especially in the Ukraine, and much is imported from abroad.

It should be noted that there is some good agricultural land in Eastern Siberia near the southern frontier, and the number of colonists (including Jews) is increasing, but the produce is marketed locally among the mining and fishing populations.

The forests of Soviet Russia cover nearly 2,000 million acres, chiefly in the northern governments and in the Urals and Siberia. Large quantities of **timber** are cut for domestic use and also as industrial fuel for locomotives, factories and smelting works (as charcoal), while peasant dwellings of the forest belt are normally of timber. The northern forests are also the chief source of the world's supply of wood **tar** and **pitch**, which is shipped from Archangel. With the development of the coal-tar industry, however, the Russian wood-tar industry has declined. There remains, however, an opening for the preparation of the important by-products of tar. The forests are not worked to capacity as regards their *timber*, for whereas Sweden exports 20 standards per 1,000 acres, Russia only exports $1\frac{2}{3}$ standards; and whereas much of the Swedish timber goes abroad partly manufactured, whether as joinery (frames, sashes, joists), ply-wood, celluloid, paper-pulp or paper, Russian timber is almost entirely unmanufactured. The Swedish forests have, however, the advantage of a greatly superior location, since the largest Russian rivers (Dwina, Petchora) suitable for timber rafts flow to the Arctic Ocean, and the Siberian forests are even worse off for transport facilities. Exploitation is, however, on an increasing scale in the west, and the Far Eastern Area holds considerable promise, although at present timber must be rail-hauled to Vladivostok, and so is at a disadvantage in the Pacific market. The various northern affluents of the Volga bring the forest products to the central and southern regions, while the lake system behind Leningrad (Onega, Ladoga) is also valuable in this

Russia.

respect. The north-eastern forests also yield *furs*, but the chief source of supply is Siberia, where Tobolsk is an important collecting centre, and an annual fur fair is held at Irbit, on the eastern frontier of Russia-in-Europe.

The *fisheries* of Russia are important, and fish enters largely into the diet of the peasantry. Of greatest value are the sturgeon fisheries (for *caviare*) of the lower Volga, and the Caspian fisheries generally, which support over 115,000 fishermen and their families. Off the Murman and White Sea coasts, there are *herring* and *cod* fisheries, besides *seals* (for oil) in the Arctic Ocean. Apart from *caviare*, which is exported from Astrakan to the value of about £ $\frac{1}{2}$ million, the fish are consumed within the country, and Russia is a very considerable importer of salt herrings and stock-fish from the North Sea and elsewhere. The sea and river fisheries of Eastern Siberia, hitherto chiefly exploited by the Japanese (for salmon, cod, etc.), are receiving attention.

The mineral wealth of the Russian Soviet Republics is very considerable indeed, although the most valuable coal-field (the Donetz) and the even more valuable oil-fields (the Baku) lie in regions having a sort of semi-independence. Apart from Siberia, Russia has three **coal**-fields, all very favourably located, viz. that of Moscow, lying to the south of the capital and in the heart of the industrial region, that of the Urals, which supplies the local smelting furnaces, and that of the Donetz Basin, lying in the Ukraine and adjacent Don territory, which is also in the neighbourhood of large ore bodies. The total coal output is over 34 million tons, of which over three-fourths is from Ukraine, and there is a small export from the Black Sea ports, while about $\frac{1}{2}$ million tons is imported for the Leningrad area.

The *iron ore* resources are ample, alike in the West Ural mining area and in the Ukraine, the output being 5 million tons. The Ukraine ores are located at Krivoi Rog, in the lower Dnieper basin, and near at hand are large beds of **manganese** ore, running from Nikopol to Marinpol, and yielding nearly a million tons, of which much is exported. **Salt** is mined in quantity near Bakmut (on the coal-field) and is also obtained from the lagoons fringing the Black Sea coast. Of greater importance to the outside world, however, are the **platinum** workings, which were formerly responsible for over 90 per cent. of the total supply of this precious metal and still produce over 50 per cent. Russia also produces annually about 40 tons of **gold**, of which 10 tons or more come from the Ural mines, and the remainder chiefly from Siberia. This is retained in the country. A great deal of foreign, especially British, capital is invested in the Ural region, and the Kishtym, Sissert and Tanalyk Estates are well known in this country. The first named Company introduced the important electrolytic process for the extraction of metals, with the result that the output of **silver** was more than doubled, while the output of **copper** rose in the Urals alone to 170,000 tons, but here, as in so many parts of the world, the copper mines are practically at a standstill. Some gold is also recovered by the electrolytic process, while much of this metal is now obtained from reefs. As regards zinc and lead, Russia-in-Europe can look to Siberia, for both in the Steppe Provinces and in the Altai Mountain region there appear to be very large undeveloped resources in white and also in coloured metals.

Gold is found in many parts of Siberia, especially in Trans-Baikalia, where mining is the leading industry. The Yeneseisk, Vitimsk, and Amur

Russia.

fields are the most important, and the total yield is nearly 1 million oz. **Copper** comes chiefly from the Spassky (Akmolinsk) smelting works on the Kirghiz Steppes, but there are large untouched reserves in the Altai. In the latter region **zinc** and **lead** are also present in great abundance, and zinc is smelted on the neighbouring coal-field. The Nerchinsk mineral region, in the upper Amur basin, is also rich in copper, zinc, and lead. **Coal** is mined chiefly for the railway, but with improved transport facilities the eastern deposits would be available for shipping at Vladivostok, and the neighbouring iron ore could be marketed in Japan. The five chief basins are:—to the south of Tomsk; on the Kirghiz Steppes; to the west of Irkutsk; in Trans-Baikalia; and in the far Eastern Province.

While two-thirds of the large and valuable **mineral oil** output of the Soviet Union is from Trans-Caucasia, there are also important oil-fields in North Caucasia, at Grozny and Maikop (Kuban), and on the north-east shore of the Caspian Sea at Emba-Uralsk. Of these the Grozny field is the largest producer, the yield being about 26 million barrels or 2 per cent. of the entire world supply in 1928.

The manufacturing industries of Russia are very considerable, and fill a large proportion of the home demand as regards large classes of commodities. Lack of fuel, lack of means of transport, shortage of raw materials, and absenteeism among the workmen were responsible for the greatly reduced production under the new régime; difficulties which are now overcome. As regards the **iron** and **steel** industry, blast furnaces and smelters are most numerous in the West Ural region (Perm) and in the Ukraine, the output in the latter area being $2\frac{1}{2}$ million tons of pig-iron, and nearly as much raw steel, while the remaining million tons of pig-iron and 2 million tons of steel is chiefly from the Ural area, and from the Moscow industrial region. The Ukraine has a very important manufacture of heavy iron and steel goods—rails, beams, sheet-iron, wire, axles, etc., a leading centre being Dniepropetrovsk. Manufactures of iron and steel goods are carried on in Moscow, Tver and many of the towns of Central Russia, while Leningrad is also important in this respect. The country is self-supporting as regards locomotives and rolling-stock, and there is a large manufacture of constructional steel, wire, rails, pipes, plough-shares, shovels, besides agricultural machinery. Miscellaneous *metal wares* of copper, brass, etc., are also made, chiefly in the Moscow district and Leningrad. They include samovars, lamps, kettles and other domestic utensils. The very considerable *textile* industry is also limited to the same two regions. **Cottons** are the most important product, $7\frac{1}{4}$ million spindles remaining to Soviet Russia. Raw cotton comes from Turkestan and from the Caucasus, and upon this Central Russia has always mainly depended, but there is also a large import of raw cotton, partly from Egypt.

The **woollen** industry is on a smaller scale, as although the coarse local wool suffices for the coarse cloth woven in the east of the industrial region at Penza, Simbursk and Tambov, the fine cloth of Moscow and Leningrad is made from imported merino wool and yarn, mainly from Britain or from British Colonies. Moscow also makes shoddy and "union" goods. There are 385,000 woollen spindles and 19,000 looms in Soviet Russia.

The **silk** industry draws about 15 per cent. of the raw material required from the Caucasus and Turkestan. There are 7,000 hand and 8,500 mechanical looms, besides 271,000 spindles. In addition, there is a small

Russia.

linen-weaving industry. Rope and cordage are made from local hemp, while Leningrad has a jute industry, relying on imported material.

Rubber is manufactured at Leningrad, Moscow and Vladimir. Goloshes, tyres, hose and belting are among the products.

The Russian **glass** and **china** industry satisfies the major demands of the home market, including that for window glass; but there is an import of high-grade goods, including fine china and technical glass, electric bulbs, etc. There is an important glass factory at Krasnoyarsk in Siberia.

The **paper**, cardboard, cellulose and pulp industries have not been developed to the extent that the timber resources of the country warrant, but the output is increasing in the towns of the western forest belt. *Matches* and heavy *chemicals* are locally produced, and some *electrical goods* are made at Leningrad, Moscow and Nijni Novgorod.

As has been mentioned, a large group of industries are carried on in the towns of the agricultural districts, depending upon the farms for raw materials. Such are brewing, distilling and starch manufacture, the manufacture of tobacco and cigarettes, soap and candles (from animal fats), flour-milling, tanning and leather work. General engineering, printing and carriage-building, in addition to these, are carried on in the great cities strung widely apart across Siberia.

Peasant industries, especially the making of wooden goods in the forest belt, and of homespun, cordage and embroideries, are of considerable importance.

The last ten years have seen a systematic attempt to exploit scientifically the resources of the Russian Union, and considerable progress has been made in providing electrical power. This is developed from poor coal peat, anthracite dust, and mineral oil, as well as from hydro-electric installations, according as geographical circumstances dictate.

Trade Relations.—Broadly speaking, the trade of Soviet Russia consists in sending food-stuffs and raw materials westwards in exchange for the higher grades of manufactured goods, with a secondary trade in sending coarse manufactures into Asia in return for the raw materials and food-stuffs of Siberia, Turkestan and Persia. As regards the trade with the West, it resolves itself into a competition between Great Britain and Germany, the latter country possessing the advantage of direct rail communication, while Britain has a more important place in the trade via the Baltic. The Russian buyer must be accorded longer credit than is customary in Western Europe, since payments depend on the annual harvest. Moreover, the Russian buyer does not come to Germany or to Britain to place his orders, but must be sought out in his own country. *The numbers of German agents and commercial travellers in Russia, who were able to adjust qualities, quantities, and prices of goods to accord with local custom and prejudice, helped to give Germany pre-eminence in pre-war Russian trade, which they have regained.

The vast distances to be traversed, and the locking-up of inland waterways and sea-ports by ice for many months of the year are serious natural disadvantages which Russia must face. There is considerable movement of timber on the European rivers, and of mineral oil and grain on the Volga, which is linked by canal with Leningrad. The latter port is kept open by ice-breakers, and considerable progress has been made in the development of Murmansk as a western winter port. Latvia has taken steps to

St. Pierre and Miquelon.

attract Russian trade to the important outlet of Riga by adjusting the gauge of the railway to that of Russia. Odessa, the principal Black Sea port, is generally ice-bound for two or three weeks, although a passage is kept open by ice-breakers; it has suffered from the loss of Bessarabia (now part of Rumania) as a part of its hinterland. Vladivostok, the port of the Far Eastern Area, suffers but little from ice, but is most conveniently placed as an outlet for Manchurian rather than Russian trade. The port facilities at the mouth of the Amur are very scanty, and both waterway and port are closed for several months by ice.

General Information.—The unit of currency in Russia is the *chervonetz* of 10 gold *roubles*, equivalent to £1 1s. 1½*d.* The Russian State Bank issues notes against a guarantee fund in gold. The Bank for Foreign Trade has agents in London. The metric system of weights and measures has been adopted. Mails reach Moscow in 3–3½ days, and by air-mail in 1½–2½ days. A British Commercial Counsellor and a Commercial Secretary are stationed at Moscow.

RUSSIAN TURKESTAN

See *Turkestan*, p. 430.

ST. HELENA AND ASCENSION

General Information.—St. Helena is a British Colony administered by a Governor. The area is 47 square miles, and population under 4,000. The foreign trade is under £100,000. The island is of volcanic origin, and lies in latitude 16° S., 1,200 miles from the mainland of South Africa. It is fertile and healthy. Fruit and vegetables are grown, and cattle reared for local use. The only commercial product of importance is New Zealand *flax* (phormium), which forms almost the sole export. St. Helena is an Admiralty coaling station and has cable connection with Cape Town and St. Vincent. The island of Ascension, 700 miles away, formerly controlled by the Admiralty, is now a dependency of St. Helena. These islands ceased to be of importance when sailing ships disappeared. An Imperial Trade Correspondent resides at St. Helena.

ST. PIERRE AND MIQUELON

General Conditions.—St. Pierre and Miquelon are the largest islands of two groups off the south coast of Newfoundland, which form a French colony under a Governor. The total area of the groups is 93 square miles, and the population under five thousand. The total trade is about £2 millions, **fish** (salted and dried cod) being exported, and textiles, food-stuffs, salt and miscellaneous manufactured articles imported. The local fishing industry is very small, but the islands are important as a station for the French fishing fleet which annually visits the Grand Banks and Newfoundland waters.¹

Cables between France and Canada are landed at St. Pierre. Mails arrive in 12–15 days.

¹ For Map see Newfoundland, p. 317.

ST. THOMÉ AND PRINCIPE

Area and Population.—The two islands of São Thomé and Príncipe form a Portuguese Province administered by a Governor. The area is 320 square miles, and the population nearly 60,000, of whom 52,000 are in S. Thomé. Europeans number about 1,500. The foreign trade is valued at between £1½ millions and £2 millions, exports being in excess of imports. This gives the high figure of over £25 a head, due to the fact that the bulk of the native (negro) population labour on plantations under European direction.

Position and General Conditions.—S. Thomé and Príncipe are volcanic islands lying in the Gulf of Guinea, about 120 miles apart, and 130 miles from the African coast. S. Thomé is almost on the Equator, while Príncipe is in 1½° N. lat. Hence they have a uniformly hot and moist climate, which combined with the rich volcanic soil makes them exceedingly fertile. Labourers are imported from Angola and Mozambique to work on the well-managed **cacao** plantations, which cover more than half the area of the islands. The output has diminished and is between 15,000 and 20,000 tons, forming the bulk of the exports. Minor products are *coffee*, *palm kernels*, *copra* and *cinchona*. Food-stuffs, cotton textiles, tools and all supplies for the European planters and Bantu labourers form the chief imports. The trade is with Portugal and the United Kingdom.

The islands have cable connection with Nigeria and French Africa. Currency, weights and measures are as in Portugal, and the National Overseas Bank of Portugal has a branch in either island.

SAKHALIN, JAPANESE

See **Japanese Sakhalin**, p. 288.

SALVADOR (EL SALVADOR)

Area and Population.—The Republic of El Salvador has an area of 13,200 square miles (nearly twice the size of Wales) and a population of 1½ millions (over 100 to the square mile). Very few of the people are of European (Spanish) descent or are foreigners, the majority being either Indians (one-fourth) or of mixed Indian and Spanish birth (three-fourths). The principal towns are situated at a considerable elevation, as elsewhere in Central America. They are San Salvador, the capital, with 100,000 inhabitants, Santa Ana (74,000), San Miguel, Nueva San Salvador and San Vicente with populations between 20,000 and 30,000. Both in 1917 and 1919 great havoc was wrought by severe earthquake shocks. The total trade of Salvador is nearly £6 millions, or about £4 a head, the volume having shown some little increase during the last ten years. Education is nominally compulsory, but a majority of the population are illiterate.¹

¹ For Map see Guatemala, p. 240.

Samoa Islands (American).

General Physical Conditions.—Salvador is in Central America, on the Pacific slope of the mountains that run through that region. It lies between latitudes 13° and 14° N., but except on the narrow coast plain, the uniform tropical heat is modified by elevation. The summer rainfall is abundant, while the weather is dry in the winter months. The mountain slopes are forested, except where cleared for agriculture, the trees including valuable dye-woods and hardwoods.

Human and Economic Conditions.—Maize, beans, cacao, sugar, tobacco, fruit and vegetables are grown for local consumption. Almost the sole money crop is **coffee**, of which the export is worth £2-3 millions. Since the country has a Pacific seaboard only, the valuable fruit trade developed by the neighbouring Republics overlooking the Caribbean Sea is absent.

Pigs and cattle are reared, and forest products, e.g. balsam, are exploited on a small scale.

Trade Relations.—During the post-war period about half the coffee went to the United States, and one-third to France; Germany is now the principal buyer, taking one-third or more, while Holland and Norway rank next. The imports (cottons, hardware, flour, drugs and chemicals) do not come so exclusively from the United States as in the case of most of the South American Republics: the United Kingdom supplies from 16-20 per cent., and goods from Germany, France and Belgium are also marketed.

There are good roads in the Republic, and motor-vehicles are increasingly employed. Railways (narrow gauge) link the ports of Acajutla (in the north-west) and La Unión (on the Gulf of Fonseca) with towns on the highlands. The nearest port to San Salvador City is La Libertad, where all goods must be lightered. A railway recently completed links this port with Puerto Barrios, the Atlantic port of Guatemala.

General Information.—A gold standard is adopted, and the value of the silver *colon* is fixed by law at half the United States gold dollar. Paper money is in circulation, there being three local Banks of issue. The chief foreign banking establishment is the Anglo-South American Bank. The metric system is legally established, but the *libra* (1.043 lb.), the *arroba* (15 libras) and the *quintal* (100 libras) are generally in use. Mails arrive via U.S.A. in 15-20 days. The language spoken is Spanish, and the religion of the mass of the people is Roman Catholic. There is a British Consul at San Salvador. Salvador is a Member of the League of Nations.

SAMOAN ISLANDS (AMERICAN)

Area and Population.—Tutuila, the most easterly of the larger islands of the Samoan group, together with some adjacent islets, was ceded to the United States in 1900. The area is about 100 square miles, and the population nearly 9,000. It is important only as a naval station, the Commandant being also Governor of the islands.

General Conditions.—Situated in mid-Pacific, between 14° and 15° S. of the Equator, American Samoa has a rich soil, abundant rainfall

Samoa.

and a uniformly hot but healthy climate. Cultivation is easy, and tropical fruits and vegetables are grown for local use, but there is no commercial development, and a little *copra* is the sole export.

The naval harbour at Pago-pago is deep and sheltered, and is a calling point for trans-Pacific mail steamers. There is a high-powered wireless station on Tutuila, which is in communication with both sides of the Pacific Ocean, and is open to commercial traffic.

SAMOA, TERRITORY OF WESTERN (formerly GERMAN SAMOAN ISLANDS)

Area and Population.—The Samoan, or Navigator's, Islands, once a German dependency, are administered under a Mandate by New Zealand, which lies about 1,500 miles away to the south-south-west. The two chief islands are Savaii and Upolu, which cover 1,260 square miles. The population is 43,000, of whom about 39,000 are native Samoans. There are nearly 2,500 Europeans, British and Germans being in the majority. Owing to the repatriation of some thousand Chinese, the coolie population, which includes also Solomon Islanders, numbers only 1,000. The total trade is over £600,000, i.e. nearly £14 per head, but the native Samoans take little part in the commercial development of the islands, and consequently the whites and coolies are the effective economic population.

Position, Climate and General Physical Conditions.

—The Samoan Islands lie in the South Pacific Ocean, about 14° from the Equator, and 172° west of Greenwich. Time and dates are one day behind Fiji. The islands are of volcanic origin and hence have a very fertile soil, and as the S.E. trades bring heavy rains, the vegetation is luxuriant. Temperature varies but little, averaging 80° F. throughout the year.

Human and Economic Conditions.—The Samoans live mainly by fishing. They grow also such crops as coco-nuts, yams, and bread-fruit, besides rearing pigs and poultry. The staple product of the islands, as elsewhere in the Pacific, is *copra*. Both soil and climate are, however, suited to all the valuable plantation products associated with the East Indies. *Cacao* (of superior quality), *rubber* and *sugar* have been planted with success, and *coco-nut* plantations are very promising. In conjunction with the latter it is considered that *cattle* should be reared, since they keep the plantations free from weeds. Provided a labour supply is secured, the trade of Samoa may readily be quadrupled. *Fruits*, such as bananas, pineapples and oranges can readily be grown, and some fruit is exported to New Zealand.

Trade Relations.—The only seaport of Samoa is Apia, on an inlet in the north of Upolu. At present this is a mere roadstead, and new harbour works are imperative, as are roads to open up the country. The *copra* that is exported, with the small consignments of rubber and cacao, go chiefly to the United Kingdom and the United States, which send in return cotton piece goods, apparel and haberdashery, hardware, construction materials, tinned salmon and other provisions. New Zealand sends

Senegal.

tinned meat, Australia supplies flour, while rice and sugar come indirectly from Eastern Asia.

General Information.—The native population is Christian and partly educated, while native chiefs and judges take part in the administration. The Bank of New Zealand has a branch at Apia, and New Zealand notes and specie are current. There are regular sailings between Apia and Auckland (N.Z.), and Apia has a wireless station. Mails arrive via San Francisco in 25–28 days. The *Tokelau* or *Union Group*, formerly part of the Gilbert and Ellice Islands Colony, was transferred to New Zealand in 1925 and is administered from Western Samoa.

SANDWICH ISLANDS

See **Hawaii**, p. 243.

SANTO DOMINGO

See **Dominican Republic**, p. 150.

SARDINIA

See **Italy**, p. 272.

SASKATCHEWAN

See **Canada**, p. 95.

SAXONY

See **Germany**, p. 200.

SCOTLAND

See **Great Britain**, p. 217.

SELANGOR

See **Malaya**, p. 298.

SENEGAL

See **French West Africa**, p. 194.

SERBIA

See **Yugoslavia**, p. 463.

SEYCHELLES

Area and Population.—The Seychelles Archipelago, formerly French, is a British Colony, administered by a Governor. The principal island is Mahé, capital Victoria, while others are Praslin, La Digue and Silhouette. Many smaller groups (Amirante Islands, Aldabra Islands, Providence Islands, Cosmoledo Group, etc.), making 90 in all, are attached to the Seychelles, the total area being 156 square miles, and the population 27,000. The trade averages about £300,000, or over £10 a head, but fluctuates considerably. A small number of persons of pure French descent (originally from Mauritius) form the aristocracy of the islands. The bulk of the peasantry and small landowners are negroes or half-castes, and there are also Indian and Chinese elements in the population.

Position and General Physical Conditions.—The Seychelles lie in the Indian Ocean about $4\frac{1}{2}^{\circ}$ S. of the Equator, and nearly a thousand miles east of Mombasa. Their climate resembles that of the Pacific Islands, i.e. uniformly warm, with abundant moisture, and the death-rate is low. The vegetation is tropical, coco-nut plants and cinnamon trees growing abundantly, while the shores are usually fringed with mangrove. Owing to the low latitude hurricanes do not occur as they do in Mauritius.

Human and Economic Conditions.—The peasantry grow manioc, yams and bananas for their own use, and keep poultry and a few pigs. The chief commercial products are **copra** and **coco-nut oil**. The Seychelles are also one of the leading sources of supply of *vanilla*, and an industry of great promise is the distillation of *cinnamon oil*, besides some production of *oil of patchouli*. There are considerable **rubber** and **pineapple** plantations, dating from recent years, and as labour is plentiful, a period of greatly increased trade and prosperity is to be expected.

On some of the islands there are deposits of **phosphates**, which are being increasingly shipped to Mauritius and Kenya.

Trade Relations and General Information.—The vanilla and essential oils go largely to France, copra to Germany and Britain. Among imports, rice and cottons from India take a leading place, besides miscellaneous manufactured articles and beverages from Great Britain and France. Mauritius sends rum and sugar, besides re-exports of manufactures. The Seychelles are regularly visited by steamers sailing from India to Mombasa, and from Natal to Aden, Victoria being a coaling station. There is cable connection with Mauritius and Mombasa. Mails arrive in 26–50 days. The currency consists of rupees, worth 1s. 6d. The metric system of weights and measures is in use. The Clerk to the Governor acts as Imperial Trade Correspondent.

SHANTUNG

See **China**, p. 115.

SIAM

Area and Population.—The Kingdom of Siam covers an area of about 195,000 square miles (the area of Spain), and has a population of 10 millions (Spain has 21 millions). The people are a branch of the South Mongolian race, and as regards civilization and culture resemble the Burmese. They are ready to adopt Western methods and ideas, and a fair percentage are literate, while a University has lately been instituted at Bangkok. British advisers and teachers are numerous, and English is the language of the Court and educated classes. The prosperity of the country is consequently increasing, and the foreign trade has increased in value to over £43 millions annually from an average (1917-22) of only £25 millions. Thus it has reached over £4 a head, with an excess of exports of 20-30 per cent. and sometimes even more.

Practically 80 per cent. of the trade of the Kingdom is carried on through the capital, Bangkok, which in consequence has a population of over half a million. Nearly 40 per cent. of these are Chinese, for most of the trading and industrial enterprises are in the hands of Chinamen, and the same race supplies coolie labour for the mills and mines. The Siamese themselves are attached to the land, the great majority being peasant-farmers, but with the spread of education the natives will play a more active part in their country's development. The little island of Puket, the chief active centre for southern Siam, has nearly 180,000 people.

Position, Climate and General Physical Conditions.

—Siam lies in the heart of the peninsula of Indo-China, between Burma and the French Indies, in the same latitude as Southern India. The climate is dominated by the monsoon winds, hence there is abundant summer rainfall—heaviest and most reliable on the coast belt and on the mountains—and a season of drought when the north-east off-shore monsoon is blowing.

The Kingdom includes also a long narrow strip of territory running down the Malay Peninsula, and this region, having sea on either hand,

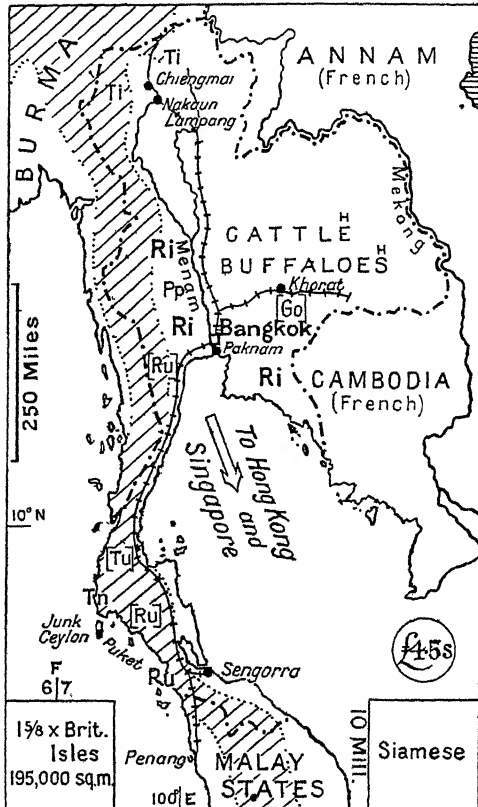


FIG. 76.—SIAM.

receives rain at both seasons. The climate is uniformly hot, especially in early summer before the rains, but the heat is not excessive.

The chief topographical feature of Siam is the Menam River, which runs from the north to the south of the country. It is on the flood plain of this river that the majority of the villages and towns are built, and the Menam is also a highway of commerce. The coast ranges and the mountains of the west and south-west are heavily forested, but there is a more open savannah country to the east which is relatively little developed. This open region drains to the Mekong, the great river of French Indo-China.

Human and Economic Conditions.—As in all the flood plains of the monsoon lands, **rice** is the staple crop, irrigation being easy, and in Siam there is a large surplus when local needs have been satisfied. Hence rice is also the money crop, and rice-milling is the leading industry of Bangkok. In a good year over a million tons is available for export, and the quantity may reach nearly $1\frac{3}{4}$ million tons with an exceptional harvest. Cotton, sugar, millets, pulses, oil-seeds, fruits—the typical products of a monsoon country—are grown for local use only. *Pepper* is cultivated for export, and *rubber* is being planted with success in the coastal Malay Peninsula regions. In the latter area, the trunk railway facilitates the export of rubber (£ $\frac{1}{2}$ million) and food-stuffs to the Penang market.

Cattle and buffaloes in almost equal numbers (over $2\frac{1}{2}$ millions of each) are reared for draught purposes, and for their meat and milk, but only the *hides* are an article of commerce.

The forests yield bamboos, rattans, and a variety of woods for domestic purposes, but their chief commercial product is **teak**, which is cut largely in the north and north-west, the industry being mainly in British hands. Elephants are employed to move the logs, which are subsequently floated on the summer floods down the Menam to Bangkok, where there are saw-mills. The annual value of the logs is about £1 million, but supplies cannot be indefinitely maintained.

The *mineral* resources of Siam are considerable, especially in the mountain chain running down to Malaya. Just off the west coast is the rocky island of Junk Ceylon (Puket), with important **tin** mines, and this mineral is widely spread through the region, as it is in neighbouring Malaya and Burma. The output of ore is 10,000 tons, valued at nearly £2 millions, which is sent to the smelters of Penang, which may include oil. *Gold* is produced near Korat. There are also valuable mineral deposits in the north-west district now reached by the railway.

Trade Relations.—The railway system is centred in Bangkok, and consists of a line running northward up the Menam valley to Nakaun-Lampang, a centre for trans-frontier trade to Burma; a line running eastward via Korat to the Cambodian frontier; and a line running southward through the peninsula and connected with the Malay States railways, thus affording a through route to Singapore.

Owing to the bar at the mouth of the Menam, large ocean steamers cannot reach Bangkok, and consequently most of the trade goes through the *entrepôts* of Singapore and Hong-Kong, where goods are transhipped. Thus the ultimate destination and country of origin of the goods is not shown in trade returns, but the United Kingdom has a very important share.

Sierra Leone.

About 45 per cent. of the rice goes to Singapore and Penang, and 30 per cent. to Hong-Kong, while Japan takes 5 per cent. and there are small direct shipments to Cuba, China and the Dutch Indies. As has been mentioned the tin ore goes to Penang, while the teak export is more widely distributed, only 25 per cent. going to Hong-Kong and Singapore, other markets being the United Kingdom, Ceylon, and the Union of South Africa. The minor exports, including dried fish, minor forest produce, pepper, and rubber go to the entrepôts, especially to Singapore. The chief imports are cottons and cotton yarn (£2 millions), in which Britain meets with competition from Japan and India; gunny bags for the rice, which come from India; hardware, tools, cutlery, machinery and rolling stock, which Great Britain can supply; matches and silk goods, which come from Japan; besides motor-cars, electrical goods, chemicals, leather goods and stationery, in respect of which the United States competes with Britain. German and Belgian manufactures are increasingly bought, and Italy supplies artificial silk and motor cars.

General Information.—The official language is Siamese, and the religion professed is Buddhism. There is a Siamese bank, while the Banque de l'Indo-Chine, the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, and the Mercantile Bank of India have branches at Bangkok. The financial position of the Kingdom is very favourable.

There is a gold standard, the monetary unit being the silver *tical* (baht), of which 11 ticals = £1 sterling. The native weights and measures are not standardized, but the metric system is coming into use, and the *picul* of 133½ lb. is commonly employed. Mails reach Bangkok in 23–26 days.

There is a British Consul-General at Bangkok, and Consular representatives at Chieng-mai, a large town in the north-west, Nakaun-Lampang, and Senggora for the southern port of the Peninsula provinces. Siam is a Member of the League of Nations.

SIBERIA

See **Russia**, p. 379.

SICILY

See **Italy**, p. 272.

SIERRA LEONE

Area and Population.—The British Colony and Protectorate of Sierra Leone has an area of 31,000 square miles (slightly larger than Scotland), and a population of 1½ millions, chiefly negroes, but including about 7,000 Europeans. The administration is in the hands of a Governor. The chief town is Freetown, with a population of 44,000. It is the most important British harbour in West Africa, is the headquarters of H.M. Forces in West Africa, and is a second-class imperial coaling station. The total foreign trade in merchandise was £3½ millions before the War, or £2 10s.

Sin-Kiang.

Great forests of the palm remain untouched in the interior, since there is a limit to the distance over which it is profitable to transport the oil and kernels by native porters. The export value is well over £1 million annually, and represents 60 per cent. of the total exports. Next in importance is the **kolanut**, which grows wild and is also cultivated, and of which shipments worth over £ $\frac{1}{4}$ million go annually to Nigeria and Gambia for native consumption. The cultivation of *ground-nuts* as a money crop is commercially possible, and with some European supervision the natives could grow *cacao*, but at present the ease with which the people can supply their wants by gathering the fruit of the oil palm is a hindrance to development in other directions. *Piassava* (for brushes) is very abundant, but very little is exported.

Trade Relations.—The bulk of the palm oil goes to Germany, followed by the United Kingdom, and these two countries, with Nigeria, take three-fourths of the exports. The United Kingdom supplies 60 per cent. of the imports, followed by the United States (12 per cent.) and Germany. Cotton piece goods are in greatest demand (nearly £ $\frac{1}{2}$ million), followed by tobacco. Coal, spirits and hardware are next in importance. There are about 330 miles of railway in the country, the main line running eastwards from Freetown almost to the Liberian frontier. The lines were built by Government and are a source of revenue. Extensions are contemplated. Freetown has a safe and commodious harbour, but all goods must be lightered.

General Information.—The Bank of British West Africa and Barclays Bank have their headquarters at Freetown. There is a special West African silver currency in use, and British coins are also in circulation, besides French five-franc pieces, and British and Nigerian currency notes. There is a weekly mail from Liverpool to Freetown, the time taken being 11 days. The Colonial Secretary at Freetown acts as Imperial Trade Correspondent.

SILESIA

See **Germany**, p. 200.

SINGAPORE

See **Malaya**, p. 298.

SIN-KIANG

Area and Population.—Sin-Kiang, or the New Dominion, is an outlying Territory of China, administered by a Governor. It comprises the seven districts of Urumchi, Barkul, Kobdo, the Altai, Ku-Cheng, Aksu, and Kashgar, having a total area of half a million square miles and a population estimated at 1 $\frac{1}{4}$ millions. The external trade is very small, barely £ $\frac{1}{2}$ million, or under 10s. a head. The various native peoples are racially akin to the Turks, and are Mohammedans, the Turki language being spoken. There is also a considerable population of immigrant Chinese.

Solomon Islands, British.

The most important towns are Kashgar (60,000 inhabitants), and Yarkand, which is slightly larger. Urumchi is the seat of administration.

Position, Climate and General Physical Conditions.

—Sin-kiang lies between 36° and 46° N. latitude in the centre of Asia, and to the east of the Pamirs. The chief physical divisions are the Tarim Basin, watered by the river of that name, and bordered by the Kuen Lun and Tian Shan Mountains; the upper Ili valley, also mountain bordered, and opening to the Siberian steppes; the Dsungarian Basin, isolated by mountains from the rest of the Province, and lying on the border of Mongolia. The climate is one of great extremes of temperature, while rain falls only on the high mountain chains, so that dust storms are frequent. Much of the country is desert, the chief water supply being that brought down by the mountain streams, which flood the ground in summer. Poplars and willows border the water courses, but apart from these the vegetation is that of a poor steppe, with saxaul, tamarisk and other shrubs in place of trees.

Human and Economic Conditions.—Over the greater part of the country pastoral occupations alone are possible, and large numbers of cattle, sheep, goats, camels and horses are reared, so that *hides*, *skins* and *wool* are articles of commerce. Wherever, however, the mountain streams and rivers allow of irrigation, the ground is cultivated, such cereals as *wheat* and *barley* doing well, besides an abundance of orchard and other *fruits*, including apricots, peaches, grapes, nuts, melons, and so forth. The mulberry does well, and *silk* is largely cultivated, forming an article of export. *Charas* (hemp) is however the commodity which has the greatest export value. A little *cotton*, *tobacco* and *opium* are also grown. Each town and village is, in fact, set in an oasis of fields and orchards, those of Turfan and Hami being particularly productive.

The native textile industries are of importance, including the making of silk and wool *carpets*, and felts, besides silk, wool and cotton fabrics which go far to supply the local market.

A little gold, silver and jade are mined, and there is said to be coal in the Ili valley, besides many other unexploited minerals.

Trade Relations and General Information.—Transport is by camel or pony caravan, or by bullock waggon. The chief trade centres are Yarkand and Khotan (the latter famous for jade) for trade with Kashmir and India; Kashgar, for trade with Western Turkestan (where is the nearest rail-head); Kuldja on the Ili, and Urumchi in Dsungaria (the latter a market for furs and skins) for trade with the Siberian steppes. In return for charas, carpets, felts, hides and skins, and raw silk, Indian and Chinese drugs, tea, dyes, and piece goods are imported. Paints and colours, metals and a little hardware are also articles of import. Chinese and Indian, besides native, weights, measures and currency are in use. There is a British Consul-General at Kashgar.

SOLOMON ISLANDS, BRITISH

Area and Population.—With the British Solomon Islands (a Protectorate) may be included for purposes of description the former German Solomon Islands for which Australia holds a mandate. The total

Somaliland Protectorate.

area of the group (Buka, Bougainville, Guadalcanar, Malaita, San Cristoval, New Georgia, Choiseul, and many smaller islets) is about 14,500 square miles, and the population includes 200,000 natives and about 200 Europeans. The foreign trade is worth only about £750,000, but has tended to increase. The principal harbour is Kieta on Bougainville.¹

General Physical Conditions.—The Solomon group is a series of islands aligned in two chains running from north-west to south-east, about 500 miles west of New Guinea (Papua). The islands are mountainous, and contain several active volcanoes. Hence they have a very fertile soil, and as they lie between parallels 5° and 11° S., the climate is uniformly hot, though not excessively so, and there are abundant tropical rains during the greater part of the year. The vegetation is luxuriant, including sandal-wood, palms (especially the coco-nut), bread-fruit trees, bananas and so forth.

Human and Economic Conditions.—The Solomon Islanders cultivate the land for their own needs, growing coco-nuts, sweet potatoes, taro, yams, and rearing pigs and poultry. They are of the vigorous Melanesian race, and are available as plantation labourers, although recruiting is expensive, and the ordinances regulating their employment are hampering. In Bougainville (formerly German) large areas have been planted with **rubber**, while in the Protectorate **coco-nut** plantations, which entail less labour, are the leading enterprise (30,000 acres). With the latter industry **cattle-rearing** could be combined, ensuring a local meat and milk supply, while it should be possible to teach the natives to grow *cotton* on their own holdings. *Sugar* is another commodity which might be grown on the plantations as successfully as in Fiji, while the small *banana* and *pineapple* industry is open to development. The *fruit* industry of the Pacific only awaits organization, for there are ready markets in the countries on either shore of the Ocean. Actually, however, the only exports of importance are *copra* (£½ million), and such products of the sea as trochus and turtle shell, and *bêche-de-mer*.

Australian Commonwealth bank notes are the chief medium of exchange in the Solomon Islands. The Resident Commissioner has his headquarters at Tulagi, where there is an Imperial Trade Correspondent.

SOMALILAND, FRENCH

See **French Somaliland**, p. 193.

SOMALILAND, ITALIAN

See **Italian Somaliland**, p. 272.

SOMALILAND PROTECTORATE

Area and Population.—The British Somali Coast is a Protectorate, administered by a Governor who is also Commander-in-Chief. The area is about 68,000 square miles, and the population 350,000. The total

¹ For Map see New Guinea, p. 320.

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trade, which is in native hands, is £ $\frac{3}{4}$ million. The inhabitants are Somalis and Arabs, who are Mohammedans. The Protectorate is mainly of strategic importance.

Position and General Conditions.—British Somaliland lies along the north coast of the Horn of Africa, and on the southern shore of the Gulf of Aden. It is bordered by French and Italian Somaliland to the west and east respectively, and to the south by Abyssinia. The country lies in latitude 10° N., in the lee of the Abyssinian Mountains, and is very hot and dry. The vegetation consists of scanty pasture and shrubs, which yield **gums**. Little agriculture is possible, and the inhabitants are pastoral nomads, rearing cattle, sheep and camels. *Hides* and *skins* and live *animals* are exported. The chief trade is with Aden through the ports of Berbera and Zeilah, native vessels coming and going with the monsoons, so that at certain seasons there is a large assembly of traders at the port.

General Information.—The basis of the currency is the Indian rupee. Bank of England and Government of India notes are also in circulation. There are wireless stations at Berbera and Zeilah. Mails arrive via Aden in 12 days.

SOUTH AFRICA, UNION OF

See **British South Africa**, p. 78.

SOUTH AUSTRALIA

See **Australia**, p. 28.

SOUTH WEST AFRICA

See **British South Africa**, p. 78.

SPAIN

Area and Population.—The Kingdom of Spain has an area of 190,000 square miles (continental Spain only), i.e. it is about nine-tenths the size of France. The population is 22 $\frac{1}{2}$ millions, or rather over half that of the latter country, and considerably less than that of the much smaller Mediterranean peninsula of Italy. This figure includes nearly a million people in the Canary Islands, the Balearic Islands and Ceuta opposite Gibraltar on the African coast. The population increases only slowly, as there is still a very large emigration (nearly 200,000 persons in 1920, but now not more than half that figure) to Latin America, especially to Argentina and Cuba. Half of these emigrants are workers on the land, driven abroad by the press of poverty. Education has been neglected, and as recently as 1910 over 60 per cent. of the population were illiterate, although latterly

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some improvement has been effected and the figure is rather under 50 per cent. The State religion is Roman Catholic, to which all but a few thousands adhere. The cities of importance include the capital, Madrid (800,000 inhabitants); the leading seaport and industrial centre, Barcelona (760,000 inhabitants); the seaport Valencia (nearly 270,000 inhabitants), besides Seville, the river port of Andalusia (200,000), Malaga, Murcia, Zaragoza, Granada, Cartagena and Bilbao, each with 100,000 or more. In addition there are about eighteen towns with between 50,000 and 100,000 people, including Valladolid, Cordova, Palma de Mallorca (Majorca), Santander, and Cadiz. Actually, however, the inhabitants of these large towns are engaged in rural occupations, going out each day into the country to their small orchards, gardens and vineyards. In 1913 the foreign trade of Spain had reached £87 millions, or rather more than £4 a head, a very low figure as compared to that in other western European countries, or even in Italy. In 1919, in spite of high prices, the figure was only £95½ millions, or nearly £5 a head, which represented a big advance on the "slump" year of 1918, but was less than the £106 million figure touched both in 1916 and 1917. At present it is about £170 millions, or under £8 a head.

It is undoubtedly the case that the War gave a stimulus to Spanish enterprise, and it should be noted that American business men have been paying very considerable attention to Spain, but the continued weakness of the exchange has been a serious handicap. A large amount of British capital is invested in the country, and Britain receives from Spain far more goods than she sells there.

Position and Climate.—Spain stretches from latitude 36° N (the latitude of Tokio and of North Carolina) to latitude 43½° N. (the latitude of Toronto). It has a sea frontier of nearly 1,000 miles on the Atlantic divided into two portions by Portugal, and one of over 1,000 miles on the Mediterranean. It has a land frontier of some 600 miles to Portugal, and another of 400 miles to France. The climate varies considerably from one part of the country to another. In the north-west it is decidedly of the type met with in Brittany and Cornwall—mild and wet, although, of course, not so cool as in the more northerly peninsulas. In the south-west, south-east and east, it is of the "Mediterranean" type—with very hot, dry, sunny summers, and most rain during the winter months, which are usually warm. The south-west has the mildest winter, and the south-east the hottest summer of these marginal regions. The Guadalquivir valley, which forms the heart of the Province of Andalusia, lies open to the south-west, i.e. to Atlantic influences, and hence has an admirable climate from an agricultural standpoint. The interior of the country has far more adverse climate conditions. It is an elevated plateau, and suffers from great extremes of heat and cold, with, in addition, a rainfall that is far from abundant. Owing to the dry atmosphere the sun temperature may be exceedingly high, while the shade temperatures are low, and, according to the season, winds piercingly cold or dust-laden sweep across the plateau. Madrid is in a particularly exposed situation, and has a correspondingly unpleasant climate.

General Physical Conditions.—The structure of the Iberian Peninsula, of which Spain forms the greater part, is relatively simple. A wedge-shaped block of ancient rocks, having its base to the Atlantic and its apex to the Mediterranean, forms the core of the plateau. It slopes west-

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ward, and is drained by the rivers Douro, Tagus and Guadiana, which have cut deep gorges into the plateau, and pass from Spain into Portugal through almost impassable ravines. The north-western corner of Spain (Galicia) is built of granite—much weathered by the heavy rains—and here is a hilly country, with a deeply indented coast, and a typical seafaring population. Bordering the Bay of Biscay, and forming a straight coast, is the chain of the Cantabrian Mountains, which at its eastern end diminishes in elevation, and thus allows an easy passage from Spain to France before the lofty Pyrenean chain commences. The Pyrenees form an effective land-boundary against France, since they rise with considerable abruptness, and have no low passes. Hence the railways were forced to pass between the terminal spurs and the sea at either end of the chain and the more direct crossing is quite recent. Between the Pyrenees and the edge of the triangular block already mentioned, lies the low and wide Ebro valley, which is cut off from the Mediterranean coast by a transverse chain of mountains through which the river has cut a narrow gorge. To the south of the same block lies the broad Guadalquivir valley, bordered to the south-east by yet another high mountain chain—the Sierra Nevada. Generally speaking, the central block is associated with metalliferous veins and ores, while on its margin there are coal measures, and in the mountain chains, especially the Cantabrian Mountains, an abundance of iron ore.

Only in the moist north-west and on the Sierras is Spain well wooded, a tree of economic importance being the cork-oak. Elsewhere, especially on the drier parts of the plateau, and in the sheltered Ebro valley, vegetation is scanty and such typical semi-desert plants as esparto-grass, aloes, cactus and prickly-pear find the climate congenial.

Human and Economic Conditions.—Spain is essentially an agricultural country, the number of persons employed on the land being over four times as great as the number employed in industry. There are a large number of petty proprietors, and only about 10 per cent. of the soil is classed as unproductive. Owing to the dry climate, vineyards and orchards take on a great importance, since the deep-rooted vines and trees can withstand the drought. Irrigation is, however, desirable, both for the orange groves and fruit orchards, and for summer crops. The Ebro and Guadalquivir valleys are both extensively irrigated, and the *huertas* or terraced gardens of the east and south-east are famous. Among corn crops **wheat** (3–4 million tons) and **barley** (2 million tons), with their small demand for rain, are of first importance, especially in such areas as the plain of Old Castile, round Valladolid and Burgos, while in the moister regions some *maize* ($\frac{1}{2}$ million tons) is grown, and in the irrigated fields over a quarter of a million tons of good *rice*. *Beetroot* is widely grown, especially on the irrigated lands in the Ebro and Guadalquivir basins, while in the south-east the *sugar-cane* is cultivated. The output of beet-sugar (with Zaragoza as the chief centre) in a good year reaches $\frac{1}{4}$ million tons, and that of cane sugar (with Granada and Malaga as chief centres) 10,000 tons. *Tobacco* is very generally grown, and is a State monopoly. Various *pulses* are also of great local importance, since they enter largely into the diet of the people. Other vegetable staples are **cork**, and **esparto** grass, the latter growing wild on poor, dry soils unfit for cultivation. The *silk-worm* is reared in the south-east, although the industry is not a flourishing one.

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Cotton-growing has lately received Government attention, and there is an output of 20,000–30,000 bales.

Generally speaking, however, Spanish field crops are of local importance only, and it is to the products of their vineyards and orchards that land-owners look for a money crop. The 3–4½ million tons of grapes harvested yield both fresh fruit (cheap table **grapes**) and dried fruit (**raisins**) for export, besides various red and white **wines**, including sherry and malaga. Wines account for about 15 per cent. of the total of exports and are the largest single item. The **olive** is also very important, although it cannot be cultivated in the north-west and north. Olive-oil is an export of very considerable value, finding a large market, e.g. in the United States, while it is also used in the important local industry of sardine preserving. Spanish wines (other than sherry) are not greatly esteemed in Britain, and the leading food-stuff imported into the latter country is **oranges**, which in 1919 touched the unusually high figure of £8½ millions, prices being exceptionally high, although £5 millions is the normal figure. The province of Valencia has the largest acreage under orange groves. Minor crops which go to swell an important total are hazel **nuts**, chestnuts and walnuts, while **Spanish onions** alone reach Great Britain to the value of over £1 million. The fact that over 24 per cent. of the productive lands of Spain are classed as natural pastures indicates the importance of the animal industries. The pastures are, however, in the main arid, so that **sheep** take the lead as regards numbers, especially on the plateau, there being about 20 millions in all, mainly of breeds important for their wool, as is usual in a dry climate. There are also a large number of **goats**, roughly 4½ millions, which can browse on the coarse herbs and shrubs of the poorest hill-sides. Horned *cattle* number only 3¼ millions, and are most numerous in the moister north and north-west, and on the Cantabrian and Pyrenean Mountain pastures. *Pigs* are more numerous than goats, and are depastured in the woods and forests. *Mules* and *asses* number 1 million in each case, as against only ¾ million horses, the more hardy and coarser feeding animals being more suitable to the climate and to the rough and often mountainous roads of the country. The *wool* and *hair* of the sheep and goats form articles of export, and are also employed in home manufactures.

The fisheries of Spain occupy 130,000 men, and the catch is worth about £10 millions. *Sardines* and *tunny* are the most important fish, and there is a considerable canning industry, e.g. at Vigo and Huelva.

In addition to her orchards and gardens, the *minerals* of Spain are a source of considerable wealth and commercial activity. These include about 7 million tons of **coal** (as compared to 4 million tons in 1913), which is mainly consumed locally, and 6 million tons of **iron** ore and pyrites, which go chiefly to Great Britain, the value (in the latter country) being £10 millions in 1917 and £11 millions in 1918, but falling to £8½ millions in 1919, when the output of Spanish mines in general slackened, and to £2 millions with present lower prices. France and Germany are also purchasers. The chief mining areas are in the north behind Bilbao, the leading exporting centre, and behind the ports of Gijon (in the Oviedo district) and Santander. There are also mines near Seville, in the Sierra Morena, which forms the southern edge of the plateau. The Bilbao ores are of the highest quality, consisting of low phosphorus hematites and spathic ore which is calcined before export. The reserves are large. **Copper** was, until recently, next

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in importance to iron, the output of ore from the famous Rio Tinto mines to the south-west of the Sierra Morena being 4 million tons. Spain supplies about 10 per cent. of the world's copper, the port for the mines being Huelva. **Lead** is now, however, of greater value than copper (about £4 millions at the mine), and is found at Linares to the south-east of the Sierra Morena. A considerable quantity is sent to Britain. *Zinc, sulphur, quicksilver* (at Almaden on the plateau, representing 45 per cent. of the world's supply), *manganese* and *wolfram* together have a value of about £ $\frac{3}{4}$ million at the mine, and of these, quicksilver, zinc ore and wolfram are imported into the British Isles, the first named largely for re-export. Large **potash** deposits have been located in the province of Barcelona, and the output is now valued at £ $\frac{1}{2}$ million.

Although much mineral ore is exported from Spain as such, the refining and smelting industries and the chemical industry have made considerable progress, and the value of the output has reached over £32 millions. *Pig and bar iron* and *steel* lead in value, followed by *briquettes* and *coke*, refined *lead*, refined and blister *copper*, *superphosphates*, *sulphuric acid*, Portland *cement*, copper sulphate and refined silver.

Although playing a less important part in external trade, the *textile* industries of Spain occupy twice as many workpeople as the metallurgical industries, and the export of **cotton** manufactures is in excess of the import. The principal centre is at Barcelona, where water-power from the Pyrenees is largely employed to drive the mills. The total number of spindles is over 2 $\frac{1}{2}$ millions. *Woollen* industries are also carried on in the same district, but since the raw material can be locally obtained, many woollen factories are scattered up and down the country in addition.

A considerable **paper** industry, based on rags and esparto grass in addition to imported pulp, has grown up in Catalonia, which is in fact the pre-eminent industrial region of Spain. The manufacture of **corks** is also one of value, and there is also an export of cork and cork chips. **Glass**-making should likewise be noticed. Motor and general *engineering* is important at Guadalajara (near Madrid), Barcelona and Cadiz, while Madrid has many *luxury* trades. There is also a very active and important shipbuilding industry, centred chiefly in Bilbao and Ferrol. The available waterpower of Spain is estimated at 6 million horse-power, derived mainly from the Pyrenees and Cantabrian Mountains, since elsewhere the rivers are very low in summer. The progress made is indicated by the fact that in 1920, 620,000 h.p. was used, as against 281,000 h.p. in 1914, while at the present day the figure is over 1 million h.p.

Trade Relations.—In spite of the fact that the manufactures of Spain are well established, it is broadly the case that the country imports manufactured goods in exchange for minerals, metals, and the special food-stuffs characteristic of the Mediterranean countries. Hence her natural trade relations are with the great manufacturing countries, Britain, Germany, the U.S.A. and France. Britain has always taken a leading part as regards volume of trade, but a large proportion of this trade has represented the exchange of Spanish iron ore for coal, pig iron and wrought iron. The conditions brought about by the War led to an increase of production of Spanish coal, and of the local smelting of iron. Hence this branch of trade is continuing rather to decline than to develop, and more attention must be paid to marketing British manufactures—machinery, fine cottons and woollens

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electrical apparatus and fittings, chemicals, etc.—as an offset to the return of fruits, nuts, refined metals and so on. Previous to the War, Spain bought largely of German manufactured goods, although the return trade was somewhat small, since Germany could buy the typical Mediterranean products more easily from Italy. With the United States, too, the trade, mainly of recent development, is one-sided, since that country, while sending out grain and cotton, is self-supplying as regards the majority of metals, and as regards oranges and raisins, and thus imports from Spain only olive oil, sardines and other specialized manufactured goods. In the case of France, offering in addition to wines, silks and motor-cars, only a limited range of manufactured goods, the balance is often in the opposite sense, and the excess of Spanish goods imported over French goods sent to Spain very greatly increased during the recent abnormal years. Outside Europe, Spain has a natural market for certain of her own manufactures (cottons, soap, cigarettes, etc.) in Morocco, and this should increase now that Tangier has rail connection with the interior. Lying farther afield are the Spanish-American countries, where the bond created by a common language and common race gives the Spanish merchant a certain advantage. This is now being pushed, especially in Cuba and Argentina, but in all these countries, the United States, with her vast resources and superior organization, is a formidable rival.

As the port for Catalonia, the leading industrial region of Spain, Barcelona handles the highest proportion of external trade, especially as regards imports. Vessels drawing 30 ft. can lie alongside the quays. Bilbao is, however, far more favourably placed as regards British and transatlantic commerce, although greatly handicapped by its mountainous hinterland, by poor communications with the capital, and by the fact that for large vessels there is anchorage only. A free zone has been established at this port, where goods can be warehoused and can undergo processes (such as oil extraction, tanning) which increase the value of the article without altering its nature. A similar free port is proposed for Barcelona. Valencia and Malaga serve the fruit, olive, and wine producing regions of the east and south-east, while Cadiz, on the coast, and Seville, on the Guadalquivir, are the ports for Andalusia. The latter city suffers from river floods, and a scheme for the control of the Guadalquivir is pending. At Cadiz there is a free zone, but for large vessels there is again anchorage only. Algeciras harbour on the Straits of Gibraltar is being improved.

Coruña and Vigo in the extreme north-west are convenient mail and passenger stations for Atlantic vessels, both having sheltered, deep-water harbours. Palma de Mallorca serves the Balearic Islands, which have productive orchards, vineyards and gardens, besides fisheries.

General Information.—The unit of currency in Spain is the *peseta*, equivalent to the franc and worth nominally 27-28 to the pound sterling. There is a gold standard, but gold is not in general circulation, and none has been coined since 1907. Notes are issued under certain regulations by the Bank of Spain, which has London offices. The chief foreign banking establishments are the Anglo-South American Bank, International Banking Corporation, and the Crédit Lyonnais. The Anglo-South American Bank has a branch in Barcelona. The metric system of weights and measures is nominally in use, but the old units are widely current, including the *quintal* of 101 lb., the *libra* of 1·014 lb., the *arroba* for wine of 3½ imperial

Spitzbergen.

gallons, and for oil of $2\frac{3}{4}$ gallons. Mails reach Spain from London in $2\frac{1}{2}$ days. Commercial air-services are well developed with Portugal, France and Africa.

There is a British Consul-General at Barcelona, besides Consular representatives at Bilbao, Madrid, Seville, Malaga, Cadiz, Coruna and Valencia. Two Commercial Secretaries are attached to the British Legation. Spain is a Member of the League of Nations.

SPANISH GUINEA

See **Fernando Po**, p. 173.

SPITZBERGEN

Area and Population.—The archipelago of Spitzbergen, for long a No Man's Land, has been assigned to Norway, the nearest territory on the mainland of Europe. The area of the group is estimated at about 25,000 square miles, the principal islands being West Spitzbergen, 12,000 square miles, North-East Island, Barents Island and Edge Island. The population consists of a few thousand miners, of whom a small proportion only remain during the winter months. The islands are important for their mineral wealth, and exploiting companies of various nationals have staked claims to particular areas, which claims are now legalized. British claims cover the largest area, while Norwegians, Swedes, Russians and Dutch have also an interest in the islands.

Position, Physical Conditions and General Information.—Spitzbergen lies between 77° and 81° north latitude, i.e. far within the Arctic circle, and as it is also an elevated country, much of the interior is covered with permanent snowfields, and where the surface is exposed the vegetation is limited to mosses, lichens and a few Arctic plants. Reindeer, foxes and bears were formerly numerous, but have been ruthlessly hunted. The country is incapable of producing any crops or of supporting domestic animals, although the latter can survive the climate if fodder is provided. During the winter months there is complete darkness, and any permanent settlement must use electric light; on the other hand, during the summer months the sun does not set. The coast is deeply indented by branching fjords, which give easy access to the interior, there being deep water right up to the shore, which is overlooked by lofty cliffs. Ice Fjord, an opening on the west coast of West Spitzbergen, is the most important of these, as, owing to the relative warmth of the western waters (due to the Gulf Stream Drift) there is no pack ice off this coast in summer. Moreover, thick coal seams come down to the shores of Ice Fjord, where the chief mining villages are located. Lowe Sound, a little farther south, although not so large as Ice Fjord, has a length of over 50 miles, and on both these inlets there are important British claims.

Coal is the most important mineral found, and is that exploited on the largest scale. The resources are estimated in thousands of millions of tons, although at present the maximum output is 300,000 tons. The coal is taken from the mine to the ship by a wire ropeway, and in general is mined by

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means of gently sloping adits. Shipments are only possible during June–October, inclusive. Norway is the chief market.

Other resources are **iron ore**, in large quantity, that by Recherche Bay (out of Lowe Sound) being already opened up; **gypsum**, of great purity, occurring in wide bands along the cliffs; **marble** and ornamental *building stones*, which can be obtained from coast quarries. Communication is maintained by a Norwegian wireless installation at Green Harbour (on Ice Fjord), which is the postal centre. This harbour is $2\frac{1}{2}$ to 3 days' sail from Norway, and 5 to 6 days from Aberdeen.

STRAITS SETTLEMENTS

See **Malaya**, p. 298.

SUDAN, ANGLO-EGYPTIAN

See **Anglo-Egyptian Sudan**, p. 12.

SUDAN, FRENCH

See **French West Africa**, p. 194.

SUEZ CANAL

See **Egypt**, p. 163.

SUMATRA

See **Dutch East Indies**, p. 152.

SURINAM

See **Dutch Guiana**, p. 158.

SWEDEN

Area and Population.—The Kingdom of Sweden has an area of 173,000 square miles (rather larger than the German Republic), and a population of a little over 6 millions. The population increases but slowly, owing to the small excess of births, and to a steady emigration overseas, mainly to the United States. Apart from some thousands of Finns and Lapps, and about 22,000 foreigners, the population is entirely Swedish. Among the Swedes the percentage of illiterates is very low, and a large number of people speak German, French or English, in addition to their mother-tongue. The State religion is Protestant. There are only three considerable cities—Stockholm, the capital, with over 460,000 inhabitants, Göteborg, the western seaport, with 233,000, and Malmö, the southern seaport

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(opposite Germany and Copenhagen), with 117,000. Norrköping, a market and industrial centre, and a minor port, has barely 60,000, and in addition there are thirty-five small towns with between 10,000 and 50,000 people. Upsala and Lund, the two ancient university cities, are each about half the size of Cambridge. The foreign trade of Sweden in 1914 had reached over £80 millions, or about £14 *per capita*, and in that year the normal excess of imports over exports was reversed. From 1918 to 1920 the figure averaged £229 millions (£40 *per capita*), of which £97 millions represented exports and £132 millions represented imports. This increase was due rather to enhanced prices than to any actual rise in the total volume of trade, although in particular classes of goods, e.g. manufactures, there was greater activity, balanced by a smaller movement of timber and food stuffs. The trade for 1928 was £180 millions, or £30 a head, with imports slightly in excess.

Sweden is in a very prosperous condition, as indicated by the large sums totalled by savings bank deposits. The normal excess of imports is balanced by the services of Swedish shippers and middlemen, and of the considerable merchant navy.

Position and Climate.—Sweden forms the eastern or leeward section of the Scandinavian Peninsula, marching with Norway in the west. It extends some degrees farther south than the latter country, and does not stretch so far north, and these facts, coupled with the generally lower elevation of the country, give to Sweden a far greater extent of cultivable land than the neighbouring kingdom. Being sheltered from the warm, moist Atlantic winds by the highlands of Norway, Sweden has a moderate rainfall, and a very severe winter. To the south of latitude 60° N., however, the provinces of southern Svealand and Götland form a low-lying sub-peninsula, washed by the Kattegat and Baltic Sea, and here the climate resembles that of the neighbouring peninsula of Denmark, although it is not so mild. It is in this southern position, with its agricultural and pastoral possibilities that the bulk of the population of Sweden is found.

General Physical Conditions.—The western boundary of Sweden runs along a high plateau which is a snowy waste in winter, and a bare moorland in summer. From this elevation the land slopes eastward to the Gulf of Bothnia, and the rain and snow of the plateau are carried off by a series of parallel rivers—the Tornea, Lulea, Umea, Dal, etc.—which are important sources of hydro-electric power. Usually they emerge from long, narrow lakes, a series of which fringe the plateau, and hence a steady flow of water is ensured. South of latitude 60° N. occurs the sub-peninsula already mentioned, which is crossed by a great depression in which lie large irregularly shaped lakes. The most important of these are Lakes Wener and Wetter, linked by the river Göta, and draining to the Kattegat. The Göta has been canalized, and a canal cut from Lake Wetter to the Baltic, so that there is a direct waterway across the peninsula from west to east, the terminal ports being Göteborg and Söderköping. The lower Göta is broken by the Trollhätten Falls, an important power centre. Another large lake is Lake Mälär, extending far inland behind Stockholm. Immediately to the south of Lake Wetter is a somewhat hilly and sandy wood and moorland tract, which falls away in all directions to more fertile agricultural land. Generally speaking, the uncleared lands south of latitude 60° N. are clothed with broad-leaved forest (oak, elm, birch) and mixed forests, while

Sweden.

to the north of that parallel lie the great coniferous forests (larch, spruce, fir) which form the main natural wealth of Sweden. This forest region also contains great mineral deposits, for it is built of old crystalline rocks (including granite), which are often associated with metalliferous veins. The southern lowlands are covered with marine sediments and glacial clays, while in the extreme south a chalk formation appears.

Human and Economic Conditions.—Agriculture is important in Sweden, in spite of the relatively small area in which favourable soil and climate conditions are found. The land is for the most part farmed by the owner of the soil, and more than 80% of the holdings are quite small—from 5 to 50 acres. The total number of farms is 430,000, and the cultivated area is less than one-tenth of the total land surface of the country. Cultivated fields cover $9\frac{1}{2}$ million acres, of which about one-third is under fodder crops or pasture, while there are besides some 3 million acres of natural pasture. *Stock-rearing* is consequently important, the census of animals in 1920 showing nearly $\frac{3}{4}$ million horses, $2\frac{1}{2}$ million horned cattle, $1\frac{1}{2}$ million sheep, 133,000 goats, nearly $\frac{3}{4}$ million pigs, and $\frac{1}{4}$ million reindeer. The latter are used as transport and milch animals by the Lapps and others in the north of Sweden. The **horses** are bred for export as well as for home use, and the number sent to Germany greatly increased during the War. The *dairying* industry of Sweden had assumed very considerable importance during the years preceding the War, and although shortage of feeding stuffs and the demand for slaughter animals during the War years led to a serious reduction of output, the set-back was only temporary and there is now a considerable surplus of *butter* and *bacon* for export, besides some *cheese*, with a total value of £5–6 millions. The ratio of cattle to population is much higher than in Britain, although rather less than that in Denmark. The sheep of Sweden are of local importance only, supplying raw material for small woollen manufactures. The ratio of pigs to population is less than half that of Denmark, and the bacon industry is mainly for the home market.

As regards corn crops, the high latitude and the consequent severe climate render the wheat and barley harvest uncertain, and the largest acreage is under *oats*, followed by *rye*. Consequently there is a large import of grain for human food purposes. *Potatoes* are a very important crop, over $1\frac{1}{2}$ million tons, and in the extreme south *sugar-beet* (over 1 million tons) is successfully and increasingly grown, although at present there is no exportable surplus of sugar.

Apart from the dairying industry, the agriculture of Sweden is merely of local importance, the principal asset of the country being the woods and *forests* which cover 57 per cent. of the total surface. About 20 million acres—or one-third of the total—belongs to the State, and is an important source of revenue. The **timber** industries employ about 63,000 workpeople, and the products were in 1927 worth £25 millions—or £10 millions more than in 1913. Sawn and planed timber (planks, battens, scantlings, etc.) and partly manufactured timber (window frames, mouldings, etc.) of Swedish origin find a market in every civilized country in the world. The same is true of the products of the expanding **pulp** and **paper** industry which employs over 58,000 workpeople, and had an output in 1927 valued at £38 millions—or £26 millions higher than in 1913. The saw-mills and pulp mills are located on the rivers flowing into the Gulf of Bothnia, which drain the

Sweden.

forest area. These offer both a means of floating the logs to the mills and ample water-power to drive the machinery. A series of small timber-ports—Söderhamn, Hernösand, Umea, etc.—lies along the Gulf of Bothnia.

The old rocks which build the greater part of Sweden north of the chain of great lakes are exceedingly rich in *minerals*, with the result that mining and metal working in some form or other occupies 30 per cent. of the total of 400,000 persons employed in industry, and the value of the output is £55 millions. The principal mineral product is **iron**, the most famous field being the Gellivare district in Lapland, which is connected by electric railway with Lulea on the Gulf of Bothnia, and also with Narvik on the Norwegian coast, the latter being ice-free during the months when Lulea is closed. The deposits are mainly magnetite, which as a rule is high in phosphorus, and the reserves are estimated at nearly 100 million tons. Of $9\frac{1}{2}$ million tons of iron ore raised in Sweden in 1927 nearly 90 per cent. was exported as such, the lack of coal in Lapland rendering this the most economical way of disposing of the product. The low phosphorus iron from the fields of Central Sweden (Dannemora, etc.) is, however, smelted locally, partly with imported coal, and partly with charcoal. There are also large hæmatite deposits high in phosphorus in Central Sweden. Some $\frac{3}{4}$ million tons of *pig-iron* and $\frac{1}{2}$ million tons of *steel* are produced annually, including high-grade electrically smelted iron from 25 furnaces. A proportion of the pigiron is exported, but the quantity has diminished with the growth of the local steel manufacturing industries. The difficulty of obtaining the special Swedish high-quality iron in Britain during the War led to a rapid development of electric furnaces, e.g. in Sheffield, and their products to some extent displace the Swedish charcoal-smelted iron. Broadly speaking, during the War years, Sweden was able to supply more *metal manufactures* to her home market and at the same time permanently increased her sales abroad. This was the case especially with dairying and other machinery, motors, electrical apparatus and fittings, scientific instruments, clocks and other highly specialized products for which the Swedish manufacturers have a high reputation. The glass and porcelain parts used in these manufactures also come from Swedish factories. *Chemical industries*, including matches, produce goods to the value of £11-12 millions, the matches being largely exported. The world market for matches is largely controlled from Sweden, although only a fraction of the output is locally produced. *Leather* and *rubber* industries are also important, although the products are mainly locally consumed. The same is true of the output from the textile factories, roughly to the value of £10 millions of *cottons* and the same of *woollens*; the export is small and the import very considerable.

Besides iron, **copper** is mined at Falun, the output of ore being lately very variable, while 63,000 tons of **zinc** ore, 17,000 tons of *manganese* ore, and 7,000 tons of *silver-lead* ore were also raised in 1927. The smelting of these metals, besides *tin*, partly from imported ores, increased considerably during the War and remains of importance.

In the absence of coal-fields (except for a small one, producing under $\frac{1}{2}$ million tons, in Scania) there is no concentration of industries in large towns or in particular areas, save for the cotton mills of Norrköping. The factories are scattered all over the country-side in the better-peopled centre and south,

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the exact location being determined by the presence of a waterfall or by convenience of rail or water transport.

Hydro-electric stations in Sweden already produced 1,250,000 horse-power in 1920, and another million horse-power has since been added. The railways are gradually being electrified, and electric lighting even in rural areas is general. The most prominent power station is that of Trollhättén, whence surplus power is exported to Denmark.

Trade Relations.—Broadly speaking, Sweden requires in bulk coal, grain and flour, colonial wares, raw textile material and yarn, and particular classes of textile goods, metal goods and machinery, besides luxury articles. Great Britain takes a prominent part in supplying these goods, either directly or through her entrepôts, and in return buys practically every class of Swedish exports. The Board of Trade figures for 1920 showed that the volume of trade between the two countries reached the high figure of £95 millions—as compared with about £20 millions before the War. This was, however, quite abnormal, and the present figure is little more than one-third that total, with a great excess of Swedish imports into Britain. The trade between Germany and Sweden is now, once more, more important than that with Great Britain, since (apart from the movement of coal) it is of the same character as that with the latter country, and the Swedish port of Malmö is connected via Trelleborg by train-ferry with Germany, while Göteborg is also nearer to the German ports and entrepôts than to those of Britain. With Norway, Denmark and Finland, lying, as they do within easy distance, Sweden does a considerable volume of trade, and there should be a market for the cheaper Swedish manufactures in the new East Baltic Republics and in Russia, which can supply in return grain, flax, hemp, beet-sugar and cattle-cake. The use of central heating in Sweden determines a considerable demand for coke and anthracite, and the former can be supplied by Germany: Polish coal has recently proved a strong competitor with British, and a price agreement has been entered into by British, Polish and German interests. The United States, supplying grain, raw cotton, mineral oil, canned goods and manufactures, plays an important part in Swedish trade, and offers a market for pulp and paper, besides semi-manufactured timber, in spite of the great home and Canadian supplies. As has been mentioned, Swedish timber and paper are marketed directly in a great many parts of the world (e.g. Australia, South Africa, Spain) from which the direct return trade is small. Since, however, Sweden has established her position in these markets, and has a very considerable merchant marine (over 1 million gross tonnage), there is an opportunity for her to build up a valuable entrepôt trade for the import and re-export of foreign goods to the Baltic countries generally, the position of Göteborg being very central. The minor port of Halmstad, on Kattegat, is also well placed for trade with the West, while Kalmar, behind Öland, is similarly situated on the east coast. There are Free Harbours at Göteborg, Stockholm and Malmö, which can be entered by vessels drawing 30 ft.

General Information.—The unit of currency in Sweden is the same as in Norway and Denmark, namely the *krona* of 100 *öre* with a par value of 1s. 1½d., or 18·16 *kroner* to the pound sterling. The National Bank (belonging entirely to the State) has power to issue notes. The

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standard of value is gold. The chief bank with foreign connexions is the Svenska Handelsbank, for which all the leading London and Continental banks are agents.

The metric system of weights and measures is obligatory. Letters from London reach Stockholm in 2-2½ days and by air in 26 hours. There is a Consul at Stockholm, besides Consular representatives at Malmö, Gäfve, Söderhamn and other commercial centres. There is a British Commercial Secretary at Stockholm. Sweden is a Member of the League of Nations.

SWITZERLAND

Area and Population.—The Swiss Confederation of twenty-two Cantons has a Republican constitution, the chief magistrate being an annually elected President. The area of Switzerland is nearly 16,000 square miles (a little larger than Denmark), and the population about 4 millions. Of these, 65 per cent. are German speaking, 20 per cent. (chiefly in the south-west cantons of Geneva, Vaud, Valais, Neuchâtel and Fribourg) are French speaking, 7½ per cent. (in the canton of Ticino, beyond the St. Gothard) are Italian speaking, and about 40,000 in the Upper Rhine basin speak Romansch, a language akin to Latin. The largest town is the industrial and educational centre of Zürich, with 215,000 inhabitants; Geneva, the south-western gateway into the country, has 126,000; Basel, in a corresponding position in the north-west, has 142,000; Bern, the Federal capital, 109,000; Lausanne and St. Gall, important industrial cities, have each about 70,000; Lucerne, the famous tourist centre, has 46,000, and six other towns have over 20,000. The total foreign trade in 1919 and 1920 averaged £286 millions, or £75 *per capita*, as compared to £132 millions, or £33 *per capita* in 1913. The return to normal price levels and restoration of German trade has led to a present figure of £190-195 millions, or £48 a head. The large volume of trade is characteristic of a manufacturing country, since both food and raw materials must be imported in bulk, and articles of high value are exported. Switzerland has always a so-called "adverse" balance of trade, the imports exceeding the exports by about £20-25 millions. Actually, however, the balance is adjusted by "invisible exports" in the shape of the money spent in the country by the summer tourists and the visitors thronging to the winter sports. During the War years, when the hotel industry was almost at a standstill, this "adverse" balance was likewise very small.

Position and Climate.—Switzerland lies in the heart of Europe, marching with France, Germany, Austria and Italy. It extends from latitude 45° 49' N. to latitude 47° 49' N., and from longitude 5° 58' E. to longitude 10° 30' E.; it is thus in the same latitudes as Burgundy to the west and the Hungarian Plain to the east. The climate is that of Central Europe, i.e. more extreme than that of Britain, modified by the fact that even outside the Alps proper the whole country is elevated, and the greater part has a northern aspect. Thus really hot summers are limited to certain deep valleys, and to a few regions facing south, e.g. Neuchâtel, Ticino, and the northern shores of Lake Geneva. Winter snow is universal, and in the

Switzerland.

mountains is an economic asset, not only providing for the winter sports, but also giving their peculiar richness to the Alpine meadows, and supplying water-power in the shape of snow-fed torrents.

General Physical Conditions.—Switzerland includes the central and loftiest masses of the Alps, which extend also into Austria, France and Italy, together with a part of the plateau which flanks the mountains to the north. This plateau is shut off from France by the Jura Mountains, part of which are Swiss, but on the whole it lies open to Germany, the boundary in this direction being formed by Lake Constance and the Rhine. Both the Rhine and the Rhone take their rise in Switzerland, and each empties itself into a large lake (Constance and Geneva respectively) on leaving the high Alps. The plateau or foreland belt is drained by the Aar, Reuss and Limmat, all of which eventually unite with the Rhine above Basel, and all of which have their flow regulated by lakes (Neuchâtel, Lucerne, Zürich, etc.). Hence they are well suited for the development of water-power. On the southern slopes of the Alps, which are much more abrupt than the northern, the River Ticino, and its tributary the Toce, are of greatest importance, as affording the principal route-ways into Italy. The St. Gothard Pass lies between the Upper Reuss and Ticino valleys, the Simplon Pass between the Upper Rhone and Toce valleys, both these being followed by railways. The cutting of the Lotschberg Tunnel through the Bernese Alps gave a more direct approach to the Simplon than was originally the case.

Human and Economic Conditions.—In spite of its mountainous character, over three-quarters of Switzerland is reckoned as productive. Nearly one-fourth of the productive area is under forests, chiefly pines, firs, and larches, although there is also oak, beech, maple and walnut at the lower elevations. Agricultural land (in the valley bottoms and on the plateau), together with meadows and Alpine pastures, makes up more than half the total, while in the south-west there are vineyards on the sunny slopes, and considerable space is devoted to orchards. Little more than a quarter of the working population, however, is occupied in agriculture and forestry, the grain, root and fruit crops being of importance only as a home food supply. The animal industries, however, play a part in external trade, particularly the *dairying* industry, for which the rich pastures and abundant hay are well suited. Horned **cattle** number $1\frac{1}{2}$ millions, the number of sheep being insignificant, while of goats there are only 300,000 and of pigs 600,000. Pedigree Toggenburg goats are a valuable milking strain. **Condensed milk** and **cheese** (including Neuchâtel and Gruyère) are exported in large quantities, while the milk is also used in the important *confectionery* industry (milk chocolate, etc.). *Bee-keeping* is of some importance locally, approximately 35,000 bee-keepers possessing 262,000 hives.

Between 40 and 50 per cent. of employed persons in Switzerland are engaged in industry or handicrafts, and that in spite of the fact that apart from **salt** ($\frac{3}{4}$ million tons) a little iron ore, manganese ore and wood, the country is without raw materials, and moreover is without fuel and without direct access to the sea. The widespread development of hydro-electric power partly compensates for the lack of coal, but some 3 million tons are required annually for the railways, for domestic use and for industry. Consequently the manufactures of Switzerland tend to be those requiring

a high degree of technical skill, and such that the finished product has a high value relatively to its bulk.

Most characteristic is the **watch** and **clock** industry of the south-west, centring in Geneva and Neuchâtel. Gold, silver, and base metal watches are turned out, besides wooden and other clocks, the export in 1928 being worth £12 millions. Raw metals, including special qualities of steel from Britain, are necessarily imported for this industry.

In the north-east of the country is found the **cotton embroidery** and **machine lace** industry centring at St. Gall, which employs, besides factory hands, large numbers of outworkers in the surrounding districts. Fine cotton yarn for this industry is supplied in part by Britain. The export of cottons was first on the list in 1919, and was valued at over £31 millions, but change of fashion consequent on the introduction of silk and artificial silk lingerie has necessitated the destruction of much of the machinery, while more than half the personnel engaged in embroidery has been forced to seek other employment. The fine handkerchief industry is, however, still important, besides some other specialized articles and trimmings.

The **silk-weaving** industry (natural and artificial) is of practically equal importance, the leading centre being Zürich, and the secondary centre Basel (for ribbons which, like embroidery, have lost some of their former vogue). Raw silk and silk yarn are supplied by both Italy and France. The export in 1928 reached £13 millions.

The **engineering** industry is highly developed in all the chief cities, a famous centre being Winterthur, where electrical and other locomotives are manufactured. *Machinery* takes a high place among Swiss exports, the value in 1928 being £9 millions. Other metal industries, especially *iron* manufactures, *copper* manufactures, and *aluminium* manufactures, are likewise important, and furnish exports to the value of over £5 millions. The electro-chemical products include also calcium-carbide and ferro-silicon. *Motor-cars*, especially lorries, are manufactured on a large scale, this industry, like the metal industries already mentioned, having expanded rapidly during the war years.

The **chemical** and **dyestuffs** industry is an old-established one, centred at Basel, and supplies about 10 per cent. of the world's demand. Raw chemicals and intermediate substances are imported from Germany and to a less extent from Britain, while latterly they have been drawn also from Spain. Aniline dyes and indigo are the chief articles produced (over £3½ millions), besides pharmaceutical products and perfumery.

Among miscellaneous manufactures, that of wooden articles, including *furniture*, is of leading importance, while Swiss confectionery (especially *chocolate*), *slippers*, *boots* and *shoes*, musical instruments, and scientific *instruments* and *apparatus* are also widely marketed abroad.

Trade Relations.—Swiss trade follows three main routes—by the Rhine valley (through Alsace) to Antwerp or Rotterdam, via Basel: by the Rhone valley to Marseilles or Cette, via Geneva: through the St. Gothard tunnel, or across the Simplon Pass, and thence across the Lombardy Plain to Genoa. The last named, though the most direct, is expensive, so that all the routes compete on fairly equal terms. The improvement of the Rhine water-way so as to render it navigable for steamers to Basel is very desirable from the Swiss standpoint. The fact, however, that the

Syria (with Palestine).

Swiss traffic passes through French territory only to seek a Belgian or Dutch port stands in the way of special facilities being acceptable to France over the northern route. Much of the heavy inward traffic—e.g. iron, coal, grain, timber—is, however, necessarily by way of the Rhine valley, since these goods come from Britain, Germany, France, America and Sweden. The list of countries with which Switzerland does a large volume of trade is a long one. Germany, Great Britain, the United States, France, and Italy are her customers of the first rank, with in addition the group of States formerly comprising the Austro-Hungarian Empire. Spain, Holland, Bulgaria, Sweden, Japan, Australia and Denmark are customers of the second rank. Imports are drawn from a slightly different grouping of countries, Germany, France, the United States, Great Britain, Italy and Canada coming in the first rank as regards the value of goods supplied, while Japan, Egypt (for cotton), Argentina, Sweden, the Dutch Indies (for sugar, cacao, etc.), British India, Brazil, Austria and her neighbours fall into the second rank.

As has been mentioned, Swiss manufactures are mainly of specialized groups of articles, which find a market in every civilized country in the world, including those that are themselves engaged in manufacture. Hence there are necessarily many classes of manufactured goods which Switzerland must import, and manufactures formed in 1928 39 per cent. of the total imports, while food-stuffs formed 26 per cent. and raw materials 35 per cent. On the other hand raw materials formed only 10 per cent. of the exports, food-stuffs 10 per cent., and manufactured goods the remaining 80 per cent.

In 1914 Switzerland was employing only 19 per cent. of the water-power available, some 800 establishments employing an average of $\frac{1}{2}$ million horse-power, but the present figure is well over 2 million horse-power, or 25 per cent. of the available power, with a further $\frac{1}{2}$ million horse-power in course of construction. A proportion of the power is exported to Germany, Alsace and Italy. The demand for foreign coal is diminishing, and the economic position of the country is correspondingly strengthened. The whole railway system will be electrified in the course of a few years.

General Information.—The unit of currency in Switzerland is the franc, of which $25\cdot22\frac{1}{2} = \text{£}1$ sterling. The National Bank alone has power to issue notes, those now in circulation totalling nearly three times the value of the coins. The Swiss Bank Corporation has offices in London.

The metric system of weights and measures is legally established. The chief unit of weight is the *pfund*, which is equal to $\frac{1}{2}$ kilogramme, equivalent to $1\frac{1}{10}$ lb. *avoirdupois*. The *quintal* is equal to 100 kilogrammes or 200 *pfunden*. Over half the Swiss people are Protestants, and about one-third are Roman Catholics, but there is complete religious liberty. Mails reach Switzerland in one day. There is a British Consul-General at Zürich, besides Consuls or Vice-Consuls at Basel, Geneva, Zürich, Lausanne, and all the leading towns. A Commercial Secretary is attached to the British Legation. Switzerland is a Member of the League of Nations.

SYRIA (WITH PALESTINE)

Area and Population.—Syria and Palestine, formerly under Turkish rule, have an area of about 70,000 square miles (rather larger than Italy), and a population of approximately 3 millions. Of this total

Syria (with Palestine).

Palestine, which is administered under a British Mandate, covers 10,000 square miles, and has 900,000 people. The territory north of Palestine is under a French Mandate, and the western portion has been granted autonomy, under the designation of the Great Lebanon. The bulk of the population are Syrian Arabs, and the language spoken is Arabic. The prevailing religion is Mohammedanism, but about 10 per cent. are Christians. In Palestine, besides, there are about 150,000 (16 per cent.) Jews (including recent colonists), and the British Government is establishing that country as a national home of the Jewish people, although the rights of the Arab majority are to be respected. Trans-Jordan, lying east of Palestine, with $\frac{1}{4}$ million inhabitants, is also under the British Mandate, but has independent government.

The two largest cities of Syria are Damascus and Aleppo, the historic traffic centres on the desert margin, each with about 150,000 people. Beirut, the chief city and port of Great Lebanon, has 80,000 inhabitants; Jerusalem, the Holy City alike of Jews, Christians and Mohammedans, has 60,000; Jaffa, the chief seaport of Palestine, has 54,000; Haifa, also a port, has 25,000.

Various missionary bodies carry on educational work in Syria and Palestine; the American College at Beirut is important, and instruction for the Jewish community (carried on in Hebrew) is very thoroughly organized.

Trade statistics for the region as at present organized show an average of £23 millions, the share of Palestine being £9 millions. This represents £7-8 per head. Imports are in excess of exports, which is partly explained by the subsidizing of teachers, missionaries, clergy and Jews from abroad, and by the fact that money is brought into the country by pilgrims and tourists to the Holy Places.

General Physical Conditions.—Except for a narrow coastal plain to the south-west, and the small but exceedingly fertile Plain of Esdraelon in the north of Palestine, the country is hilly and elevated, especially in the north, where the Lebanon Mountains rise over 8,000 feet. A longitudinal valley, forming a deep trough about 10 miles wide, runs from north to south, dividing the Lebanon Mountains into two ranges, with the Orontes flowing between. The northern and higher lying portion of this trough is the fertile region known as the Beka'a; the southern portion holds the waters of the Jordan, and its level gradually sinks lower and lower, so that the Dead Sea, which lies within it, has a surface 1,300 feet below that of the Mediterranean Sea. Hence the valley is sultry and unhealthy. The summer is a season of drought and the rains fall off rapidly towards the interior, and towards the southern frontier of Palestine.

The hilly country is covered with natural pasture, or with scrub oak and wild figs and mulberries. The once famous cedar forests of Lebanon have been destroyed. Beyond the longitudinal trough, the scanty rainfall gives the country a bare aspect, except where the streams from Anti-Lebanon water the gardens of Damascus.

Human and Economic Conditions.—Syria and Palestine are agricultural regions, although the land has fallen into a neglected state owing to poverty and misgovernment. Wherever farm colonies have been established with sufficient capital, enterprise, and skill, to make the best of

Syria (with Palestine).

summer, the high-grade "Turkish" **tobacco**, grown round Latakia and Tripoli, and the **cotton** of Aleppo. *Licorice* is grown without irrigation, and is in demand in the United States for sweetening tobacco. *Oil-seeds*, especially *sesame*, are also grown. Jaffa oranges (over £ $\frac{3}{4}$ million) form one of the most valuable exports.

The live-stock consists of *camels* and *donkeys* (largely used for transport), *sheep* and *goats*, all of which thrive on the somewhat dry thin pastures of the hills, and of the desert margins. Some *wool* is exported.

There is *petroleum* in the Jordan and Dead Sea valleys, but no development has taken place. The enormous mineral *salt* and *potash* beds of the Dead Sea are to be exploited.

Trade Relations.—Syria and Palestine have already a good railway system, developed mainly by French and British companies. Alexandretta and Aleppo are linked with the Bagdad Railway from Stamboul and Smyrna to Basra, which crosses the Euphrates at Jerablus. Lines run inland from Tripoli to Homs, from Beirut to Damascus, from Haifa to Deraa in the Hauran, and from Jaffa to Jerusalem. All of these are now linked up by the north-south railroad, which runs from Aleppo via Homs and Damascus, along the desert margin to Deraa, and thence through Trans-Jordan and Arabia to Medina. It was designed to carry the vast Moslem pilgrim traffic *en route* for Mekka. The historic route from Palestine into Egypt is now followed by a railway, which reaches the Suez Canal, where truck transporters take the railway vehicles across the canal to the main Port Said and Cairo line.

Beirut has a harbour with wharf accommodation, and is the chief port of call. Jaffa, Haifa, Akka, Tripoli and Alexandretta are merely roadsteads, but the last named has a deep and safe anchorage. At present much Syrian traffic is transhipped at Alexandria, in Egypt, but two Italian shipping lines call weekly and other continental lines at longer intervals.

Before the War, France, Turkey and Egypt took the bulk of the exports—raw silk, agricultural and animal produce—Britain taking under 10 per cent.; on the other hand the largest import trade—chiefly in cotton textiles—was British, but here Great Britain must now meet much stronger competition from Italy and France.

There should be a demand for agricultural implements and machinery in view of the progress that will be made both in Syria and Palestine under the new régime. Light motor cars and trucks, adapted to hilly country, are also in demand, as the French have improved the Syrian roads.

General Information.—The unit of currency in Syria is the Syrian pound of 100 piastres, each worth 20 centimes. The Syrian Bank issues notes under French Treasury control. The unit of currency in Palestine is the Palestine pound (£P) equivalent to the £ sterling. The chief British banking establishment is that of the Anglo-Palestine Company. Business is also done by the Barclays Bank and the Banque de Syrie et du Grand Liban. Turkish weights and measures, with local variants, are in use, but the metric system has been introduced. Mails reach Beirut in 8-9 days.

TAIWAN (FORMOSA)

Area and Population.—Taiwan was ceded to Japan by China in 1895. The area is 14,000 square miles, and the population $4\frac{1}{2}$ millions. The total foreign trade is £43 millions, i.e. £10 per head, the exports being greatly in excess of the imports. The population (4 millions) consists largely of Chinese colonists, and is mainly concentrated along the west coast opposite China. Since the annexation 200,000 Japanese colonists have entered Taiwan. The aboriginal Formosans or 'Savages' are not Mongols, and only where they have come into contact with the Chinese have they adopted a semi-civilized life. The Japanese are engaging in the systematic education of these people.

The largest town is Taihoku, in the north-west, with a population of over 190,000.

Position, Climate and General Physical Conditions.

—Taiwan lies across the Tropic of Cancer, about 120 miles from the Chinese coast, its position being similar to that of Cuba. During the long summer the south-west monsoon brings abundant rains, heaviest on the south coast, while during the warm winter the north-east monsoon brings rainfall to the northern districts. Hence the land is highly productive, and double cropping is possible. The country is mountainous, and clothed with ever-green forests, yielding bamboo and camphor, besides timber. These forests have been largely cleared in the settled districts, where the hill-sides are terraced and irrigated as in China.

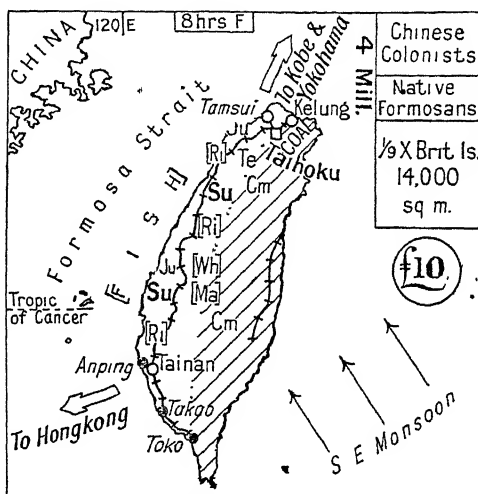


FIG. 79.—TAIWAN.

Human and Economic Conditions.—The Japanese have effected great improvements in Taiwan. Roads have been constructed, and a railway runs through the chief agricultural districts, connecting the principal seaports, Kelung in the north, Anping (for Tainan), Takao and Toko in the south-west. **Rice** is grown on the irrigated lands, to supply the large local demand, and about a quarter of the crop of 30–35 million bushels is available for the Japanese market. **Sugar** forms the most valuable export, the output being 600,000 tons annually. **Tea** (10 million lbs.) is grown on the north-west hill slopes, as the shrub requires winter rain, and a crop of recent introduction is **jute**, which is now grown on a fairly important scale. **Ramie** for grass-cloth is also widely grown. **Camphor** is collected from the forests under Government monopoly, and is manufactured at Taihoku, although the competition of German synthetic camphor is once more felt.

Timor.

Beans, wheat and sesame are locally important, and fruits, including *bananas* and *pineapples*, are exported.

The principal mineral is **coal**, of which there is a large field in the north-east of the island. The output has reached 1·8 million tons and is exported from Kelung, the best natural harbour on the island, and one suitable for large steamers. There is also a small **oil**-field near the west coast yielding 20,000 barrels. *Salt* is produced on the south-west coast.

The Chinese living on the coast engage largely in *fishing*, since they have little animal food. Buffaloes are the chief draught animals.

The *industries* include flour- and rice-milling, sugar-refining, and the manufacture of bags and hessians from the local jute. From 6–8 million lb. of raw material are consumed, a certain proportion being imported for admixture with the home-grown fibre, since the latter is very coarse.

Trade Relations.—The bulk of the produce of Taiwan is sent to Japan, in exchange for manufactured goods and fertilizers. There is also some import of Chinese produce from Foochow and Hong-Kong for the Chinese population, besides lower grade rice and timber, and manufactures and petroleum come also from the United States. Some Formosan tea is marketed in the United States and in London. About 60 per cent. of the external trade goes through Kelung, the port for Japan, and nearly 40 per cent. through Takao for Hong-Kong.

General Information.—The Incorporated Bank of Taiwan, with headquarters at Taihoku (Taipeh), and an office in London, is authorized to issue notes. The coinage, weights and measures, are those of Japan. Mails reach the country via Kobe (Japan) in about 5 weeks. The Pescadores Island, with a good natural harbour at Makung, lies just west of Taiwan. There is a British Consular Representative at Tamsui.

TANGANYIKA TERRITORY

See **British East Africa**, p. 70.

TASMANIA

See **Australia**, p. 28.

THRACE

See **Greece**, p. 234, and **Turkey**, p. 432.

TIBET

See **China**, p. 115.

TIMOR

General Information.—Timor Province is the eastern portion of the island of that name, and is a Portuguese possession, the western part of the island being part of the Dutch East Indies. It is administered by a Governor,

Tonking.

It has an area of rather over 7,000 square miles, and a population of nearly half a million, largely of the Malay race. Timor is situated 10° S. of the Equator, and the climate is tropical, with heavy summer rains followed by a dry season. The island is fertile and productive, but cultivation is mainly carried on in primitive fashion for local needs, and the foreign trade is very small. There is a small **oil-field** in the eastern extremity of the country. *Copra* and coffee are exported through the capital and port of Dilly, on the north coast, and cotton piece goods are imported. There is a branch of the Overseas Bank of Portugal at Dilly. The official unit of currency is the Portuguese gold *escudo*, nominally worth 4s. 5½d.

TOBAGO

See **British West Indies**, p. 91.

TOGOLAND

See **French West Africa**, p. 194.

TOKELAU OR UNION GROUP

See **Samoa (Western)**, p. 392.

TONGA (FRIENDLY ISLANDS)

Area and Population.—Tonga consists of three groups of islands and is a native kingdom under British Protection. The High Commissioner for the Western Pacific has jurisdiction over British subjects. Its area is nearly 400 square miles, and the population nearly 25,000, including about 500 Europeans who are traders, missionaries and teachers. The Tongans are Christians, and a large proportion have received elementary education.

General Conditions.—The Tonga group lies just within the southern tropic, to the north-east of New Zealand, from which it is distant rather more than a thousand miles. The islands include both the volcanic and coral types, and the chief commercial product is **copra**, of which the export is normally worth about £200,000. The *fruit* industry is capable of development. The greater part of the copra goes to western Europe, the United Kingdom or the United States. A proportion goes also to the soap works of New Zealand and Australia. The latter countries supply the bulk of the imports, mainly drapery, hardware, and miscellaneous provisions. There are regular sailings to Tonga via Fiji from Auckland (N.Z.). British coin is the only legal tender, and British weights and measures are used. There is a British Consul in the islands.

TONKING

See **French Indo-China**, p. 190.

TRANS-CAUCASIA, INCLUDING THE AZERBAIJAN, GEORGIA, AND ARMENIAN REPUBLICS

Area and Population.—The Republics named form a Federated Soviet Republic which forms part of the Soviet Union. Azerbaijan has an area of 32,800 square miles and a population of about $2\frac{1}{2}$ millions; Georgia has an area of 26,300 square miles, and a population of $2\frac{1}{2}$ millions; Armenia has an area of 12,000 square miles, and a population of under a million. Thus the total area of the region is 71,000 square miles (half the British Isles), while the population numbers about $5\frac{1}{2}$ millions. The Transcaucasian population is of very mixed origin, including Russian immigrants and officials, Georgians (a distinct branch of the Indo-European family), Armenians, and Tatars (Mongols), with an admixture of Jews and Persians. The Georgians, Armenians and Russians are Christians, while the various Mongol peoples are Mohammedans: thus there is religious as well as racial diversity, and there are many almost uncivilized elements among the population. Yet the region is of great importance to the outside world, since it includes the valuable Russian oil-fields, and has much partly developed mineral wealth. A large majority of the population are illiterate, but in Georgia facilities for secondary and technical education are increasing, and a University has been established at Tiflis. The leading town is Tiflis, the capital of Georgia and of the Federation, with 300,000 people; Baku, the capital of Azerbaijan, the centre of the oil industry, has 450,000 inhabitants, while Erivan, the capital of Armenia, has only 66,000. No estimate of the total trade of the region can be given, but it was probably about £5 to £6 a head in the pre-war years, and is certainly susceptible of great increase. The exports exceed the imports, since much foreign capital is invested in the country.

Position, Climate and General Physical Conditions.

—Trans-Caucasia lies in the same latitudes as the mainland of Italy, between the Black and Caspian Seas. The essential feature of the region is the lofty ridge of the Caucasus Mountains, running from north-west to south-east, and including peaks higher than those of the Alps. Northwards it falls to the Russian Plain, while to the south it falls to a deep trough-like valley bordered southward by the Armenian Highlands. Rising in the latter, the Kur river turns abruptly south-eastwards and flows through eastern Georgia, past Tiflis, down to the Caspian Sea. Rising in the Caucasus, and turning abruptly north-westwards, the Rion river flows down to the Black Sea at Poti. Thus the whole area can be divided up into four widely differing physical units—the mountain chain with its foothills, the Rion valley facing west, the Kur valley facing east, and the broken country of mountains, valleys and high basins which constitutes the Armenian Highland in the south. The rain-bearing winds, coming from the Black Sea, bring plentiful rains in winter and early summer to the Rion and Upper Kur valleys (i.e. to Georgia), which are, moreover, sheltered from the cold north winds, and hence this is an exceptionally rich and well-favoured region, for the low latitude ensures a hot summer also. Consequently there is a luxuriant evergreen vegetation. The lower

Trans-Caucasia.

Kur valley (i.e. Azerbaijan), though hot in summer, is exposed to cold easterly winds in winter, and has but little rain, so that it is steppe-like in character. The Caucasus Mountains, owing to their elevation, are free from great heat, and have plentiful rains in summer, with heavy snow in winter, although the eastern end of the range is drier than the western. These mountains are in places heavily forested, the foot-hills bearing walnut, box and Caucasus palm, mixed with oak, beech and elm, while at higher altitudes the three last-named trees predominate, and in their turn are superseded at still greater elevations by pine woods and shrubs such as are found in the Alps. In Armenia the winter snows ensure a good water supply, although some of the valleys receive but little rain in summer.

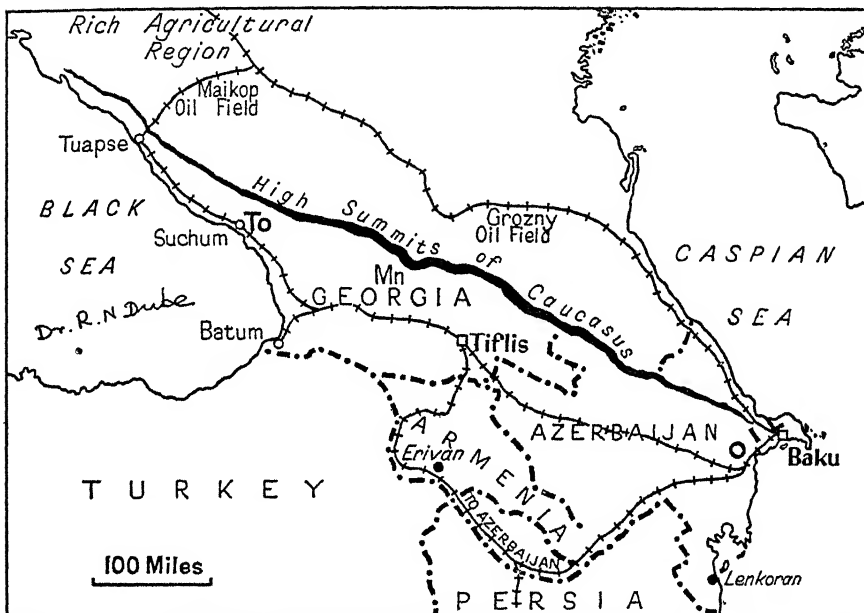


FIG. 80.—TRANS-CAUCASIA.

Human and Economic Conditions.—The cultivation of cereals, particularly winter **wheat** and **barley**, is the most important occupation in the dry Kur valley, east of Tiflis, while barley is also grown on the mountain slopes and in Armenia up to an elevation of 8,000 ft. **Maize**, which demands greater moisture, is the leading cereal of the Rion valley and Black Sea coast. **Cotton** is a crop that has shown great promise in both the Rion and Kur valleys. In the latter large areas are being irrigated, and a very valuable cotton crop secured, while there is a small production from the irrigated area of Armenia. **Tobacco** is very important on both sides of the western Caucasus, i.e. in the S. Kuban plain and in Georgia. It is sold as high quality Turkish, and the fields behind Sukhum are of special repute. **Tea** plantations have met with success on the Black Sea coast, notably behind Batum, and throughout Trans-Caucasia the hot summers lead to the ready ripening of orchard **fruits**. These include oranges, peaches,

Trans-Caucasia.

pears, plums, apricots, melons, and olives, and fruit culture is an important source of income to many small farmers, for a ready market for the produce is found in the more northerly parts of Russia. The *vine* is important, and the wine manufactured suffices for the large local consumption. The climate is suitable for the mulberry, and there is some *silk* culture, mainly for local consumption, especially in Armenia.

The extensive forests await the systematic exploitation of their valuable hard-wood **timber** trees: there is some lumbering in the Upper Rion and Kur valleys, and there are saw-mills at Poti and Tiflis, while boxwood is exported from Lenkoran on the Caspian Sea.

The mountain pastures are employed for *cattle* rearing, especially in central and eastern Georgia, while on the steppes of Azerbaijan there are primitive pastoral peoples, who raise camels as well as sheep, goats, horses and cattle.

The *fisheries* of the Caspian Sea are important, and there are sturgeon in the River Kur, giving rise to a valuable **caviare** industry.

The mineral wealth of Caucasia consists chiefly of mineral **oil**. The most productive field is that of Baku and district (the Apsheron Peninsula) in Azerbaijan: here the output was 48½ million barrels in 1917, and as the plant escaped damage during the Revolution of 1918, the output has been maintained. It is now about 60 million barrels, or two-thirds the total Russian output, much of the remainder coming from the Grozny field to the north of the Caucasus. The oil-fields have been electrified, and the workers housed on modern lines, while large refineries add to the activity and wealth of the region. The Baku oil is either sent by water across the Caspian Sea to the Volga (in summer only) and to Persia, or by rail to Batum or Poti on the Black Sea, or by pipe line to Batum. A considerable revenue from the oil-fields accrues to the State of Azerbaijan.

Coal is found in several localities in Georgia, but under 100,000 tons per annum is produced: there seem, however, possibilities of a considerable increase as the demand rises. **Manganese** is the mineral which has been most actively worked, the Chiaturi mines in Georgia yielding a large proportion of the world's supply, although India and Brazil are increasingly serious competitors. Over 1 million tons were produced in 1913, and the export was worth about a million sterling, the shipping ports being Poti and Batum. The output is now returning to normal. **Copper** is also of considerable importance, and American, French, and British capital is invested in the mines; the chief deposits are on the borders of the Armenian Highlands, to the south of the Kur and Rion valleys. The 1913 output was nearly 1,000 tons of copper. **Zinc** and **lead** are being successfully exploited on the northern slopes of the Caucasus in the Chechensk Region, and generally speaking the mineral prospects of the whole region are very encouraging. Labour, of varying grades is obtained without difficulty, and provided the roads and railways are improved, metallurgical industries should prove profitable. Water-power is very abundant, so that there is great scope for electro-metallurgical and chemical enterprises. Several large hydro-electrical installations have been constructed in Georgia and Armenia under the new régime, and industry is encouraged.

The manufactures of Caucasia are of very little importance. Tin containers and wooden cases for the oil export are made on a large scale at Baku. Silk and carpets are woven, as in Persia, and leather-work is a

Tripolitania

fairly extensive industry, owing to the abundance of hides, and the fact that the saddle-horse is the usual means of travel. All such industries, however, are merely of local importance.

Trade Relations.—Broadly speaking, Caucasia normally imports goods from Russia, while exporting largely abroad. From Baku a railway runs through Derbent, Petrovsk, Grozny and Vladikavkaz, and thence north-westward through N. Caucasia, to Rostov, whence all parts of Russia can be reached. A second line from Baku runs up the Kur valley, through Tiflis and Kutais to Poti and Batum. From Tiflis a railway runs into Armenia and Persia, but the projected Transcaucasian railway from Tiflis across the Terek Pass is unlikely to materialize. Tuapse in Kuban is to be the terminus of the Black Sea coast railway running westward from the Baku-Poti line, and this will open up a very fertile district. Many projects were maturing before the social upheaval, especially in Georgia, which has a very progressive minority among the population. Germany is the chief purchaser of manganese; most of the oil goes into Russia, but large consignments come also to Great Britain, France and Germany; raw cotton goes to Russia, and wool to Germany and Great Britain; tobacco goes to Germany and Egypt, the latter country taking some oil also. Fruits and metals, raw cotton and tea go into central Russia, and Russia supplies the bulk of the sugar and textiles required. The U.S.A., Germany and Great Britain compete to supply the iron and steel goods needed—including tin-plate, galvanized iron, machinery and plant (for the oil-fields and mines), agricultural machinery and tools, domestic hardware and miscellaneous wares such as haberdashery and apparel, earthenware, glassware, enamel-ware, stationery, fancy goods, bicycles and motor-cars.

There is an active transit trade with Persia and Turkestan via the Caspian Sea.

General Information.—The unit of currency is the *chervonetz* of ten gold roubles. Metric and Russian weights and measures (including the *pod* of 36 lbs.) are employed, although the metric system is now officially adopted. The leading banking establishments are the Russian Bank for Foreign Trade, and the Russian (Soviet) State Bank. The Georgian language has been officially adopted in Georgia, but Russian, Armenian and Tatar languages are commonly spoken.

There is a British Consul at Batum.

TRANSVAAL

See **British South Africa**, p. 78.

TRANSYLVANIA

See **Rumania**, p. 375.

TRINIDAD

See **British West Indies**, p. 91.

TRIPOLITANIA

See **Italian Libya**, p. 271.

TUNIS

Area and Population.—Tunis is a French Protectorate since 1881, the Bey of Tunis being the nominal ruler. The government is carried on by the French Foreign Office, Tunisian affairs being under the control of a Resident-General. The area of the country is about 50,000 square miles, and the population rather over 2 millions, of whom over 90 per cent. are Arabs and Kabyles. Among Europeans, Italians are in the majority, especially in the large towns, but there are 71,000 French people, of whom the greater number are agricultural colonists. The capital city Tunis has a population of over 186,000. The total foreign trade for 1917–19 averaged rather over £14 millions, £7 per head. The figure has now risen to £22 millions, or nearly £11 a head. Imports are usually in excess of exports, since large sums of money are being spent on public works, including roads and railways, and new mines are being opened up.

Position, Climate and General Physical Conditions.—

Tunis is bounded on the north and east by the Mediterranean Sea, on the west by Algeria, and on the south by the Sahara Desert. Lying between latitudes 30° N. and 37° N., the country has a climate typical of the South Mediterranean—very hot and dry in summer, warm in winter, and with winter rains which are abundant in the north, but diminish rapidly towards the desert in the south. The mountain ranges and plateaus prolong those of Algeria and trend towards the north-east, and the Merjerda valley and neighbouring coast plains repeat the characters of the agricultural Algerian Tell. The east coast plain is somewhat arid, and the south extremely so; to the south of the Saharan Atlas a deep depression runs inland, covered with a series of shallow saline lakes—the Shotts. As in Algeria, cork and holm oaks, Aleppo pine, cypress, cedars, myrtle and laurel characterize the northern zone, esparto grass

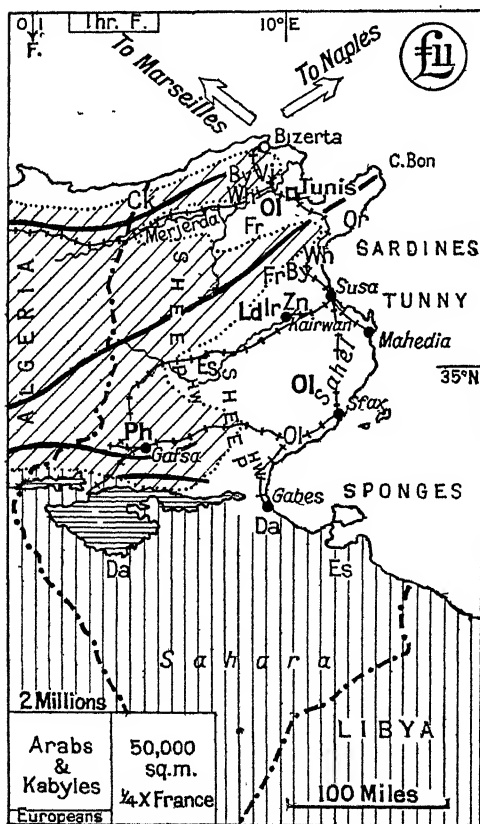


FIG. 81.—TUNIS.

and wormwood clothe the plateaus, juniper and wild olive the eastern plains, while there are oases in the southern desert region.

Tunis.

Human and Economic Conditions.—Wheat, barley, *vines*, and *orange* groves cover the agricultural lands of the north and north-east, and grain forms an important article of export, although the low rainfall renders the harvest somewhat uncertain. In value, however, it is far surpassed by **olive-oil**, the eastern coast plain being noted for its olive orchards (greatly fostered and developed by the French colonists), even towards the south, where the rainfall barely exceeds 10 in. a year. In 1917 the export of olive-oil accounted for a quarter of the total value of outgoing goods, although this was exceptional, but about 40,000 tons of oil are expressed annually. The **dates** from the southern oases (where there are over 2½ million date-palms) and the **esparto** grass from the plateaus are also articles of commerce, while from the 2 million sheep and 1¼ million goats that graze on the dry pastures there is a yield of *wool*, *hides*, and *skins* besides live and dead *meat*.

It is, however, for its *mineral* wealth, rather than for its agricultural products, that Tunis is so important, for the Atlas mountains, as in Algeria and Morocco, are rich in various ores, and in the arid belt to the south there are immense reserves of rock **phosphates**, e.g. at Gafsa. These alone are exported to the value of close upon £3 millions, the output being 3 million tons. The ore of greatest value is **lead** (37,000 tons), of which France has but a small home supply; in addition about a million tons of **iron** ore are raised, and over 18,000 tons of **zinc** ore, which is not mined at all in France.

The *fisheries* are of some importance, the catch of sardines, anchovies, tunny and sponges being worth about £½ million annually and employing 14,000 men.

Trade Relations.—Over one-third of the exports of Tunis go to France, which country also supplies over one-half of the imported goods. Great Britain at one time had the second place, supplying coal and a considerable proportion of the cotton goods, hardware and machinery which are the commodities in greatest demand. The value of these reached £2½ millions in 1919, but the return trade—including grain and ores—was only £600,000. To-day, while Britain buys ores and phosphates to the value of nearly £1 million, British goods are sold in Tunis to the value of well under £½ million. There is strong competition from Italy, a heavy buyer of olive oil and phosphates, and to a certain extent from the United States, Belgium, Germany and Holland. From Rumania and the United States comes petroleum, and from Brazil large quantities of coffee. A considerable proportion of trade is done through, or with, Algeria. The road and railway system is well developed, a line running down the Merjerda valley from Algeria to Bizerta and Tunis, the ports of the agricultural region. From Tunis a line runs south along the east coast, with branches inland from the port of Susa to the mines and olive groves, and from the port of Sfax (population 28,000) to the phosphate quarries. The railway mileage was over 1,250 in 1928. Port facilities are good.

General Information.—The coins are similar to those of France, and French weights and measures have almost superseded those of Tunis. The corn measure is in *whibas*, equivalent to a bushel, and 16 *whibas* = 1 *kassis*. The Bank of Algeria operates in Tunis and issues notes. The Comptoir Nationale d'Escompte de Paris, the Crédit Lyonnais and the Ottoman Bank do business in Tunis. The various native peoples

are Mohammedans, and there are large numbers of French and native schools, besides a few Italian, both elementary and higher. The languages of commerce are French and Arabic. Mails arrive in 3½–5½ days.

There is a British Consul-General at Tunis, a Consul at Bizerta, and Vice-Consuls at Sfax and Susa.

TURKESTAN (TURKOMAN AND UZBEK SOVIET SOCIALIST REPUBLICS)

Area and Population.—The Turkoman and Uzbek Republics (the latter including Autonomous Tajikistan) are members of the U.S.S.R. They consist essentially of the former Khanate of Khiva and the Amirate of Bokhara, two Native States under the suzerainty of Imperial Russia, and the neighbouring steppe-lands. As contiguous territories with much in common, and embracing much of the geographical unit known as Western Turkestan, it is convenient to treat them together. The total area of the two Republics is 220,000 square miles, and the population 6¼ millions: the Turkoman Republic has the larger area, the Uzbek the larger population. The centres of administration are Ashkabad (47,000 inhabitants), an oasis near the Persian frontier, and Samarkand (100,000 inhabitants), the historic trade mart in the fertile Zarafshan valley. The only other fairly large Turkoman city is the Merv oasis, with 19,000 inhabitants, but in Uzbekistan there are several, including Tashkent (300,000), Khokand and Andijan in the Ferghana Valley, each with about 65,000 inhabitants, and Bokhara, lower down the Zarafshan Valley, with 40,000. Krasnovodsk is the Caspian sea-port for the whole region.

Climate and General Physical Conditions.—Turkestan lies between the Caspian Sea and the Pamirs and neighbouring mountains, stretching roughly from 50° to 75° E. To the south it is bounded by the plateau of Iran (35° N.), and northward it merges into the Siberian steppe-land, where European colonization is in progress (48° N.). The whole region is deficient in rainfall (under 10 in. average) and derives its water from the melting snows of the lofty mountains on its eastern border. The Amu Daria and Syr Daria flow down from the mountains through fertile valleys, separated by the Alai Ranges, and thence across the semi-desert plain into the Aral Sea. The Zarafshan, with its upper valley in the Alai Mountains, flows with dwindling volume towards the Amu Daria. Farther north the Ili flows into Lake Balkash. The summers are intensely hot, and in the winter piercingly cold winds blow from the north, and snow-storms are frequent. In the mountain valleys the conditions are less extreme. The region is practically treeless, save on certain of the mountain slopes, the vegetation being of saxaul and tamarisk shrubs, with coarse pasture on the lowlands, and mountain pasture at higher levels. Willows and poplars mark the river courses, and there are great swamps with beds of reeds, besides many thousands of square miles of sandy or saline desert.

Owing to the climate large numbers of the people depend for subsistence on their flocks and herds, and there are millions of **sheep** and horned **cattle**, besides horses and camels, in the country. Hence wool, hides and skins

Turkestan.

are among the staples, and, as in Persia, there is local *carpet* and *rug* manufacture (at Bokhara), and leather work. The *karakul* sheep, whose lambs yield the so-called "Astrakan fur," are native to Bokhara.

The culture of the irrigated areas resembles that of Persia—**cotton, rice, fruits** (grapes, apricots, almonds), mulberry (for *silk*)—all being articles of commerce, the fruit in a dried state. Wheat, barley, melons, tobacco, and many varieties of crops are grown for local use. The largest acreage of irrigated land is in the upper basin of the Syr Daria (Ferghana and the Tashkent district) and in the Zarafshan Valley, which produce the bulk of the rice and cotton. The cotton crop (of the American Upland variety) is very considerable, amounting to over a million bales, and supplies 50 per cent. of

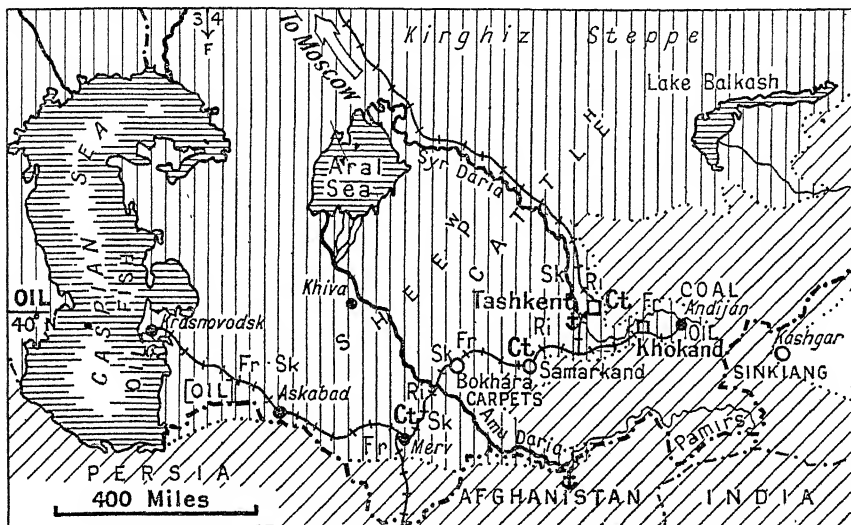


FIG. 82.—TURKESTAN.

the needs of the Russian textile industry. Large quantities of dried apricots go also to Russia. The raw silk goes partly to India, in return for green tea, Indian textiles, drugs and bazaar goods. The *fisheries* of the Caspian Sea are a valuable asset. Both Republics have important *mineral oil* resources. The field in the Upper Ferghana basin, near Andijan, produces 200,000 barrels annually, while that on Cheleken Island in the Caspian Sea, near Krasnovodsk, produces approximately 1 million barrels. A field near Ashkabad is not yet exploited. *Coal* is mined to the north of Andijan for the railways.

(During recent years the spinning and weaving of *cotton goods* on modern lines has been established in Tashkent and other large centres, and electrical power has been developed for industrial and other purposes, since the effective development of this sub-tropical region should lead to a large-scale traffic with Western Siberia and European Russia. In order to market the cotton supply, and for military purposes, two railways were built to connect Turkestan with Russia. The one starts from Krasnovodsk, opposite Baku, on the Caspian Sea, and skirting the Persian frontier, passes

Turkey.

through Ashkabad and Merv, and thence through Bokhara to Samarkand, and into the Upper Syr (Ferghana) valley. A branch runs up the valley through Khokand and other large towns, and a second branch crosses the valley to Tashkent. This city is also reached directly from Moscow by a railway which starts from Samara on the Volga, passes across the Kirghiz Steppes and ascends the lower Syr Daria Valley. A direct railway to Semipalatinsk is planned, and air-services are well maintained. A caravan route leads over the mountains to Kashgar in Chinese Turkestan and thence to China and India; a second route runs from Bokhara through Mazar-i-Shari (Afghanistan), and thence through Kabul and the Khyber Pass into India. The Central Asiatic Commercial Bank and the (Soviet) Russian State Bank have branches at Tashkent.

TURKEY

Area and Population.—The Republic of Turkey consists of Istamboul (Constantinople) and Eastern Thrace in Europe, and Asia Minor in Asia, covering altogether an area of nearly $\frac{1}{2}$ million square miles, and having a population of rather more than $13\frac{1}{2}$ millions. Except in Istamboul, all the Christian population (chiefly Greeks and Armenians) has left the Republic, and while nearly $\frac{1}{2}$ million Turks were repatriated from Macedonia, the net loss of population in present Turkish territory is in the neighbourhood of 2 million persons. The centre of government is Angora, with a population of about 75,000, while the former capital city of the Empire, Constantinople, has but a third of its former population. This city, now officially called Istamboul, includes the important suburbs of Pera on the opposite side of the Golden Horn and Scutari on the opposite shore of the Bosphorus, and has now altogether 670,000 inhabitants. Ranking second in size and commercial importance to Istamboul is Smyrna, the leading seaport of Asia Minor, which in spite of the loss of its former large Greek population has over 150,000 inhabitants, there having been a large influx of Turks and Jews. Although apart from the Jewish minority the population of Turkey is Moslem, the faith of Islam has ceased to be the established State religion. The total trade of about £40–45 millions, or £3 a head, is still very low, partly owing to the heavily depreciated currency still in circulation. The pre-war *per capita* figure for the Empire was also £3, which suggests a normal present-day figure of £4–5 as likely to be reached in the future, especially as the Republican Government is pressing a vigorous forward policy of development. A majority of the peasantry are illiterate, but elementary education is nominally compulsory, and the adoption of European characters and numerals in the place of Turkish will facilitate the extension of Western educational, cultural and commercial influences.

Istamboul, with a commanding position on the Bosphorus, has naturally a very considerable entrepôt trade and is the resort of foreign merchants. Not only Asia Minor and the Balkan Peninsula, but also South Russia and Rumania are largely served from this centre. At present, however, trade and shipping are far below normal.

Position, Climate and General Physical Conditions.—Asia Minor is a peninsula, lying to the south of the Black Sea and

Turkey.

to the north of the Eastern Mediterranean, and stretching from the broken mountain country of Armenia in the east, to the Sea of Marmora and the island-studded Ægean Sea in the west. Broadly speaking, the country is an elevated plateau, some 3,000 ft. above sea level, bordered by yet loftier mountains, which outline the northern and southern coasts. Westwards these mountains run out in many spurs to the Ægean Sea, and in consequence, whereas the north and south coasts are smooth, the west coast is very broken, and here are found numberless valleys and plains of greater or less extent which are fertile and densely peopled. The natural outlook of the country is westward. The peninsula lies between latitudes 36° N. and 42° N.—i.e. in the warm temperate region, and the margins have the typical "Mediterranean" climate—hot and sunny in summer,

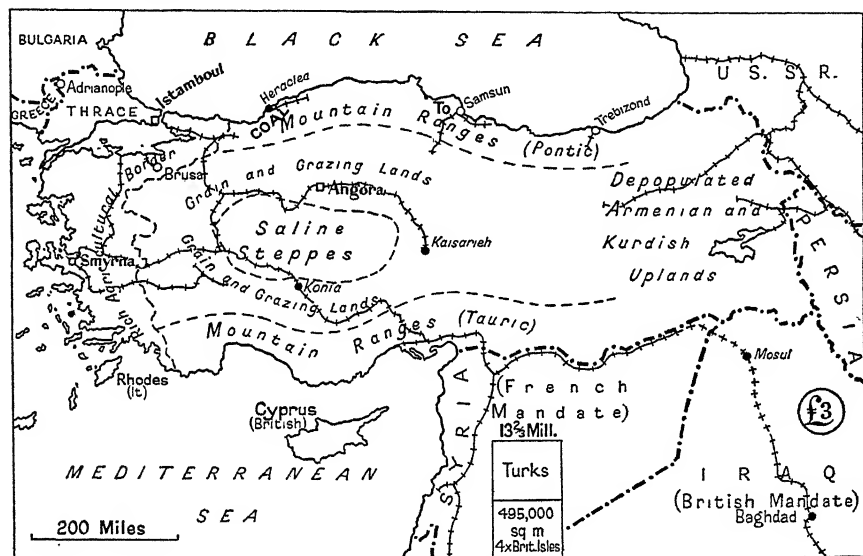


FIG. 83.—TURKEY.

mild and fairly wet in winter. Owing, however, to the disposition of the mountains, and the elevation of the interior, the latter is largely cut off from the rain-bearing winds, and suffers from drought, and from extremes of heat and cold. Hence, whereas valuable forests of oak and beech clothe the bordering mountains, the interior is a pastoral country, steppe-like in character, while in its centre there is a stretch of semi-desert scrub land, and a large saline lake. Thus cultivation is most important in the river valleys. The principal rivers are the Kizil Irmak and the Sakaria, both of which, though rising in the mountains, follow long and irregular courses across the plateau before reaching the Black Sea. The Sihun, a much smaller river, runs from the Anti-Taurus Mountains southward, past Adana, across the famous Cilician Plains. Of the west-flowing rivers the Meander, near the banks of which Aidin stands, is the most important.

Eastern Thrace, on the European side of the Sea of Marmora, is similar to the country on the Asiatic side, with wooded hills, practically uninhabited,

Turkey.

and rolling grass-lands, and a climate marred by the cold blizzards which often blow from the Russian plains in winter.

Human and Economic Conditions.—The population of Asia Minor consists almost entirely of peasant farmers, who in many districts cultivate little produce beyond their own needs, and whose methods are primitive in the extreme. In the west and south, however, where the villages are less isolated, and where the best conditions of climate are found, more modern methods are followed, and in such districts there is a surplus of production for export. The principal cereal is **barley**, which does well not only in the rich marginal valleys and plains, but also in the dry plateau region, especially in the district crossed by the railway to Angora: it is an article of export, much coming to England for malting. **Wheat** is likewise important, although it is mainly consumed within the country, and **maize** is also widely grown. Generally speaking, under favourable political and social conditions, the region might be an important source of cereals, although at present there is a net import: lack of transport facilities, however, determines that the greatest care is bestowed on products that have a high value relative to their bulk. Such, for example, is **tobacco**, much of which is of high quality, and is exported. The most important yield is from Samsun and Baffra and the neighbouring districts along the Black Sea coast. Here the yield is from 50 to 60 million lbs., and a large output of medium grades comes from the Smyrna district, and from the regions round Brussa, Ismid and Aidin, which brings up the total of leaf for export to over 90 million lbs., while there is a considerable manufacture for local consumption. **Cotton** is another valuable crop, coming in largest quantity from the Adana district in the south-east of Anatolia, while it is of increasing importance in the Smyrna and Aidin districts. The output is about 115,000 bales. *Opium* is another product suited to local conditions, being grown especially in the western plateau region, while *liquorice* (sold to the United States for sweetening tobacco as well as for a sweetmeat) grows wild in the Meander and other valleys. The northern and north-western marginal valleys and plains, with their Mediterranean type of climate, yield the typical Mediterranean range of products. These include *olives*, especially round Brussa, *silk* in the same district (although this has declined with the loss of the Greek population), **figs** and **raisin-grapes**, the last two especially associated with the Smyrna district, and forming a valuable money crop. The *nut* harvest is important, especially in the Pontic region (Black Sea coast), the wide use of nuts in confectionery having increased the demand. *Beet-sugar* has been introduced into Eastern Thrace. The forests might be a great source of wealth, since they include such valuable timber trees as the oak, and at greater elevations the pine, but both lack of transport facilities and lack of labour are immediate difficulties. The **valonia oak** is, however, cultivated and exploited in the west, since the acorn-cups yield a valuable tanning material which is sent to England and western Europe.

Animal industries become important on the dry plateau, where **sheep** and **goats**, yielding *wool* and *mohair* for export or for manufacture, are reared in very large numbers. Camels, mules and donkeys for transport are also bred in the same region.

The *mineral* wealth of Asia Minor is held to be considerable—e.g. near Diarbekr is a *copper* mine reputed very rich, but transport and labour

Turkey.

difficulties hinder profitable exploitation, nor are the political conditions as yet such as to attract foreign capital to the country. **Coal** is, however, actively worked in the Heraclea mines, and is exported from the small ports of Zonguldak and Heraclea, on the Black Sea. The output has risen from about half a million tons to $1\frac{1}{2}$ million annually. There is also a fair supply of lignite on the western margins of the plateau. *Emery* comes mainly from the vilayet of Aidin, while **meerschaut** from the plateau east of Brussa is almost a Turkish monopoly. *Chromium* is very widely distributed, and is worked in the Governments of Brussa and Aidin. Apart from coal, however, the value of the output of the various minerals in no case reaches £100,000.

The manufactures of Turkey are unimportant, with the exception of **carpet-weaving**, and this is largely centred in Smyrna and district. Much of the output was in Greek hands and a great decline followed their repatriation, but the industry is recovering. There is a small silk industry at Brussa, and a small cotton spinning and weaving industry at Adana and Smyrna.

Trade Relations.—The products of Asia Minor, including barley, wool, mohair, tobacco, opium (for pharmaceutical purposes), dried fruits, cotton, liquorice, Oriental carpets, and minerals, are all in great demand in the British Isles and western Europe, while certain among them, including tobacco and liquorice, are also bought by America. Cotton goods form the leading item of return trade, and these are largely supplied by Britain, while woollen goods and mixed wool and cotton also find a market, since European dress is now general in the towns. Practically all the machinery and the farming implements used in the better developed regions are imported, and domestic hardware, glass ware, earthenware, enamelware, etc., all find a market. Sugar and coffee are the chief food-stuffs imported, while petroleum is readily obtained from Russia. Germany, Czechoslovakia and Austria are well placed for direct trade by rail with Istamboul, while Italy and France, with convenient Mediterranean ports, are in a favourable position for seaborne trade with Smyrna and Istamboul. There is very close competition among Italy, Great Britain, Germany and France for the lead in the import trade, and these countries are followed in importance by Czechoslovakia, the United States and Belgium. Russia, Holland and Japan stand in the third rank. The Asia Minor railways converge on Smyrna and on Scutari, opposite Istamboul. From Smyrna a line runs northward to the little port of Panderma, on the Sea of Marmora; a second runs eastward across the plateau, thence through Adana on the Cilician Plain, where it links with the ports of Mersina and Alexandretta, and with Aleppo on the Syrian system, and from the latter point runs across north Arabia to Mesopotamia (the unfinished Bagdad railway). A third line from Smyrna taps the Meander valley. From Scutari a line runs through Ismid, up the Sakaria valley to Angora, and thence to Kaiseriye on the plateau, and from Eski-Shehr a branch runs southward to the main Smyrna-Konia-Adana line. Samsun, the tobacco port of the Black Sea, is being linked to Angora via Kaiseriye, but Trebizond is still isolated. Railway construction goes steadily forward.

General Information.—A gold standard has been adopted in Turkey. The unit of currency is the *piastre*, of which 100 piastres equal

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the past five years (in spite of a minimum immigration) being $1\frac{1}{2}$ millions annually. In each of the two years immediately preceding the War the number of immigrants was 1·2 millions, including about a quarter of a million from each of the three countries, Austria-Hungary, Russia and Italy. Recent restrictions now result in an immigration of about 300,000 yearly.

Up to 1920 (the last complete returns), the largest *total* number of foreign-born Americans was from the United Kingdom and Germany, $2\frac{1}{2}$ millions in each case, more than half the immigrants from the British Isles being Irish. Russia and Austria-Hungary stood next on the list, followed by Italy and Canada, the total of Canadians being 1·2 millions. In 1920 the numbers of Chinese and Japanese were 62,000 and 111,000 respectively, while 1,500 of the former and 10,000 of the latter entered the States in each of the years

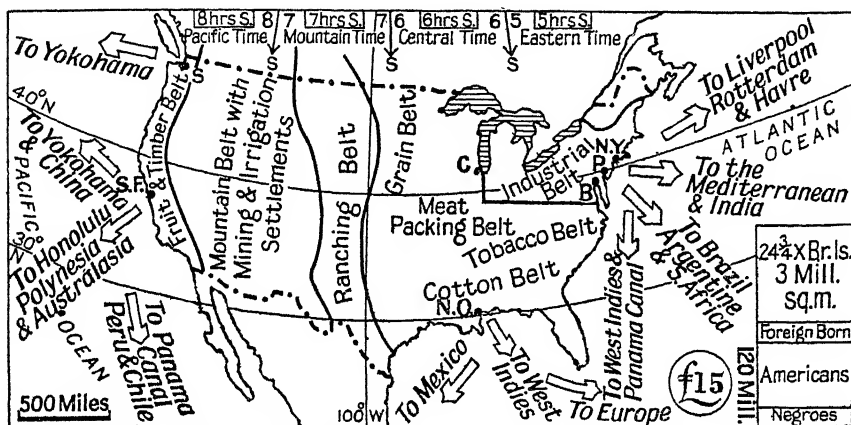


FIG. 84.—UNITED STATES: REGIONS OF PRODUCTION.

1918, 1919, but under the present system, the Asiatic immigration is very small.

Since the liberation of the negro slaves in 1865 the coloured population has increased from under four millions to about 12 millions, or 10 per cent. of the total. Both for historical and climatic reasons this coloured population is greatest in the south-eastern and Gulf States (Virginia, the Carolinas, Georgia, Alabama, Mississippi, Louisiana), where negroes form from one-third to one-half the total. The foreign-born population on the other hand is naturally concentrated in the north-east at the main points of entry into the country, and forms 30 per cent. of the total in New York State, 29 per cent. in the neighbouring States of New Jersey and Connecticut, 30 per cent. in Massachusetts (entering through Boston), as against 16 per cent. in the country as a whole. The foreign immigrants form an important element in the labour supply of the industrial centres, as the negroes do on the cotton and other plantations of the south. The figures showing the percentage of illiterates among the different sections of the population are a rough indication of their relative efficiency as members of the community. At the last census (1920) these figures were as follows: Native whites 2·0 per cent., foreign whites 13·1 per cent., coloured persons 22·9 per cent. unable to read and write. A further analysis would show that the illiterates among the

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foreign-born came from eastern and southern Europe, while a much better class of immigrant came from Britain, Scandinavia, Germany and Austria. Over and above their value as "hands," the foreign-born population, drawn from a great diversity of environments, has an importance (often underestimated), by reason of the diversities of skill, knowledge or experience which individuals possess. The Russian peasant from the Ukraine, the Italian from Lombardy, are familiar with farming under very different conditions, both of which have their analogue in the States. Similarly the timber, paper and electro-chemical industries owe much to immigrant Scandinavians, the development of lithography, dyes and glass-works to Germans and Czechs, and such examples might be multiplied.

Over 40 millions (30 per cent.) of the population of the United States live in large cities of 50,000 or more inhabitants. The number of cities with over a million inhabitants is three—Greater New York, $5\frac{1}{2}$ millions (cf. Greater London, $7\frac{1}{2}$ millions), Chicago, $2\frac{3}{4}$ millions, Philadelphia, $1\frac{3}{4}$ millions (cf. Glasgow, 1.1 millions); there are nine cities of over half a million, including Boston, St. Louis, San Francisco, Los Angeles, Detroit, Baltimore, Cleveland, Buffalo and Pittsburg, as against three such cities (Manchester, Liverpool, Birmingham) in the United Kingdom; there are, besides, fifty-seven other cities with less than half a million, but over 100,000 inhabitants, as compared with thirty-eight such cities in the United Kingdom. The percentage of population in cities of 50,000 inhabitants or more is, however, far greater in Britain, where it is 50 per cent., than in the United States, where it is only 30 per cent., or in other words a large majority of Americans are found in the country, and in the small country towns, where the dominant interest is farming.

The total foreign trade of the United States in English sterling reached £2,331 millions in 1919, that is to say, a *per capita* trade of nearly £22, as compared to £848 millions (£8½ *per capita*) before the War. The 1919 figures for the United Kingdom showed a total trade of £2,594 millions, or £51 *per capita*, as compared to £1,403 millions, or £31 *per capita*, before the War. Ten years later (1928-9) the American figure was £1,800 millions, or £15 *per capita*, and that of the United Kingdom (excluding the Irish Free State) £2,040 millions, or £46 *per capita*: hence, leaving the 1919 figures aside as quite abnormal, and bearing in mind the decline in purchasing power of money (index figure for 1928, 140.3), the United States has obtained an actual increase of foreign trade of several hundreds of millions sterling, while there has been no such increase in the United Kingdom. A recent calculation of world trade gives to the United States 14 per cent. of the total, while its population is only about 6 per cent. of that of the whole world. American imports in 1919 made up only one-third of the total trade, since the country is self-contained as regards all but a few classes of food-stuffs and raw materials. This fact of the comparative lack of bulky return freights has an important bearing upon the doubtful success of the large merchant marine which America acquired as a result of her shipbuilding activities during the War. Now that more stable conditions are restored the percentage ratio of imports to exports is 46 to 54, and a change of the greatest significance is the decreasing proportion of exported food-stuffs, and the increasing proportion of exported manufactures ready for consumption. Nevertheless, the export of raw cotton and raw tobacco alone makes up about 20 per cent. of the exports, and when to this is

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added the 17-18 per cent. representing food-stuffs, and 4-5 per cent. representing manufactures of agricultural produce, it will be seen how important the American farmer is.

Position and Climate.—The United States has incomparable natural advantages in that it stretches across the whole breadth of a continent, thus commanding two oceans, and enjoying the products of both east and west marginal types of climate : it opens to the great Gulf of Mexico in the south, thus receiving tropical warmth and moisture without the disadvantages of a tropical latitude : it lies wholly within the temperate and warm temperate belts, thus having neither frozen wastes such as those of Canada nor tropical territory such as presents so great a problem to Australia.

The eastern United States bears some resemblance to northern and central China, having a plentiful rainfall, and as regards the northern section a brief but severe winter followed by a hot summer, but, as regards the southern section, a mild or warm winter, followed by a very hot summer. On the whole, however, the presence of the Gulf of Mexico and of the Great Lakes as additional sources of atmospheric humidity gives to the eastern States a rainfall that is less markedly seasonal than that of China, and extends farther into the interior. The total rainfall diminishes with increasing distance from the sea-board, and at the same time becomes more definitely confined to the summer months. At about 100° W. the annual average falls below 20 in., and this at present sets the limit to close human settlement. Beyond this meridian is the semi-arid belt, including the high plains, and extending to include the greater part of the mountain belt, since this is cut off by the high Coastal Ranges from the influence of the Pacific winds. The narrow belt immediately along the Pacific Coast is for the most part abundantly watered by the westerly winds, but the rainfall diminishes from north to south, and at the same time becomes more and more definitely confined to the winter months, so that whereas Portland (Oregon) has a heavy rainfall nearly all the year, San Francisco has a moderate rainfall confined to late autumn, winter and early spring, while Los Angeles has a scanty rainfall in winter only. Throughout the Pacific Coast belt, temperatures are very uniform and free from extremes throughout the year, while there is much bright, hot sunshine in the dry summers. The interior plains suffer from the greatest temperature extremes, the winters being very severe in the north, while the summer heat is most excessive in the south-west, e.g. in Texas, New Mexico and Arizona. Heavy snow occurs only in the north-east and on the Rockies, the fall on the northern plains being comparatively slight, as the air is dry. The Great Lakes are ice-bound from November to April.

General Physical Conditions.—The main physical units comprised within the United States are three in number. The great mountain belt of the west is the first. It includes two distinct chains parallel to the coast, between which lie the head of Puget Sound, the fertile Willamette Valley, and the larger and still more important Californian Valley. The coast is naturally smooth and unbroken, and the three gaps in its 1,500 miles are consequently important. They are the outlet of Puget Sound, south of Vancouver Island, the estuary of the Columbia River (of which the Willamette is a tributary), and the joint mouth of the Sacramento and San Joaquin rivers (the famous San Francisco harbour) which drain the Californian valley. Beyond these parallel coastal chains lies the mountain belt proper, a series of plateaus and

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basins, large and small, of varying elevations, separated by subsidiary chains, and stretching to the Rocky Mountains, which form the eastern limit of the belt. Over the northern portion of this elevated region the Snake River follows a winding course until it joins the Columbia, passing across a lava plateau of great fertility. The southern portion is drained by the Colorado River, which crosses the Sage Plains, and the Painted Desert, passes through the famous Cañon, and finally enters the Gulf of California in Mexican territory. Between these two drainage areas is the Great Basin, where the rivers terminate in saline lakes of which Great Salt Lake in Utah is the chief. The most striking resources of the States of this mountain belt are the deposits of base and precious metals, the great grazing lands, and the mountain forests.

Sloping away from the foothills of the Rockies towards the Mississippi valley are the Great Plains (the second unit), drained by the Missouri, Platte, Arkansas and Red Rivers, all tributary to the Mississippi, which flows from a point barely 100 miles from the Canadian frontier to the Gulf of Mexico, and is navigable almost throughout its length. North-eastward of the main valley the plains rise gradually, and form the high shores of the Great Lakes, the premier inland waterway of the world. Eastwards (drained by the Ohio and Tennessee rivers) they rise to the edge of the Appalachian system, the third unit to be noticed. The great central Plains are built mainly of sedimentary rocks, smoothly outspread, so that each formation covers a wide area. Among these formations are carboniferous rocks, and hence there are coalfields of vast extent, while beneath certain beds are great stores of mineral oil and here and there accompanying reservoirs of natural gas. The land immediately around the shores of Lakes Superior and Huron differs from the rest of the Plains; it is part of the great wedge of extremely ancient rocks that forms the core of Canada, and has exceedingly valuable deposits of iron and copper ores.

The Appalachian System (the third unit) is a belt of relatively old and hard rocks, much crumpled and worn, which stretches from the north-east frontier to the Gulf Plains, and presents a varied surface of ridge and valley and low undulating plateau. The debris worn from this secondary mountain belt has been deposited along the Atlantic margin, but whereas in the south these sediments form a broad and sometimes swampy coastal plain, in the north the sea has encroached over them, so that they are transformed into fishing banks, while the valleys are also drowned, and therefore form a series of safe and valuable harbours (Hudson Valley, Delaware Bay, Chesapeake River). The Appalachian belt, because of its ridge and valley character, is more difficult to cross than its height would suggest, hence the extraordinary value, as an entry into the interior plains, of the Hudson River, which with its tributary the Mohawk cuts a gap, with easy gradients throughout, right across the mountains. At the mouth of this gap stands New York. To the north of the Hudson (in the New England States) the action of ice during the Glacial Period has produced a very irregular surface, and consequently there is an unusual abundance of water-power, which is of value in this industrial centre. Along the margins, and especially the inner margin of the Appalachian belt, there are coal-measures, besides valuable beds of iron ore and reservoirs of oil.

Nearly the whole of the eastern United States as far as the 95th meridian was, owing to the abundant rainfall, originally forested, and large and valua-

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able forest reserves still remain. The trees are usually hardwoods (oak, walnut, hickory, elm and southern pine), but softwoods (conifers) are more abundant round the Great Lakes, in the mountains of New England, on the summits of the Appalachian ridges, and on the sandy soils (pine barrens) of the Atlantic coast plain. The so-called southern pine is very abundant on the poorer soils of the Mexican Gulf plains. In the area immediately north of the Ohio and Lower Missouri valleys (Indiana, Illinois, Iowa), possibly owing to the fine loose soil, woods are less abundant, and here occur the rich prairie lands, vast stretches of natural meadow, which proved so easy to bring under the plough. Farther west, the increasing lack of rainfall gives grasses the advantage over trees, and most of the country is open



FIG. 85.—UNITED STATES: WATERWAYS AND MINERALS.

prairie, the grasses becoming coarser and less luxuriant on the semi-arid high plains immediately under the lee of the Rockies. The western mountains are clothed with coniferous forests and mountain pastures, the ranges facing the Pacific having enormous forests of conifers, including the giant Big Trees (sequoia) of California and the Douglas Pine. Prairie, sage brush, coarse pasture, or cactus desert occur in the intermont basins, according to the degree of aridity of soil and atmosphere.

Human and Economic Conditions.—The prosperity of the United States is based upon the farming community, since besides providing nearly 40 per cent. of the exports (essential food-stuffs and raw materials which Europe must buy at any price), it provides an enormous home market for American manufactured goods. The number of farms is $6\frac{1}{2}$ millions, the majority being from 50 to 500 acres; and nearly 4 million are

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cultivated by their owners. The gross value of crops and animal products averages £3,300 millions sterling, of which the bulk represents supply crops, and products marketed within the States. Such, for example, are the *hay* crop, valued at £300 millions, and the *beet-sugar*, grown principally in Michigan, Ohio, and New York State to the south of the Great Lakes, and also under irrigation in the arid mountain States, e.g. Utah and Colorado. The output averages nearly one million tons, or nearly two-thirds the output of Germany. The newly settled lands to which titles were acquired in 1918-19 totalled $8\frac{1}{2}$ million acres, i.e. an area five times the size of Devonshire was taken up and cultivated; but this was during a period of peak demand and inflated prices, and there is a tendency in the United States as in other highly civilized countries, for the farm population to diminish by exodus to the cities.

✓ **Wheat** is the principal money crop in many States, but as it is injured by too great heat and moisture, it is unimportant in the south and east. The most productive belt is that where there is a light early summer rainfall between 20 in. and 30 in., and a hot sunny autumn. These conditions are found between meridians 95° and 100° W., and thus Eastern Texas, Oklahoma, Kansas, Nebraska, South and North Dakota and Western Minnesota take the lead. Illinois, Iowa and Missouri, just to the east of this belt, are also important. Most of the wheat is autumn sown, but in the north, owing to frost, it is spring sown. Another important wheat area is the semi-arid interior of the north-western States, Washington and Oregon, where there is a rich volcanic soil. The California Valley, with its "Mediterranean" climate (summer drought), is also admirably suited to winter wheat, although other crops have recently tended to displace cereals. The average yield of wheat in the States is low (15 bushels an acre) when compared with that of European countries (United Kingdom 35 bushels an acre), owing to extensive rather than intensive methods of farming being adopted on the western prairies. The great flour-milling centres are just to the east of the wheat belt, e.g. at Minneapolis on the Mississippi, where power is derived from the Falls of St. Anthony. Breakfast-foods are manufactured at many of the Middle Western towns, and the bran is fed to stock. The wheat and flour of the Dakotas and neighbouring States move westwards by the Great Lakes through the ports of Duluth and Milwaukee, or by rail via Chicago, and leave the country by New York, Boston, Baltimore and the lesser north-eastern ports. From Kansas the grain goes down the Mississippi, or by rail to New Orleans and Galveston. The Puget Sound ports and Portland handle the crop of the north-west, and San Francisco that of California. In 1919 the United States produced nearly 40 per cent. of the world's wheat supply, and sent to the United Kingdom as much as did Canada and Australia combined. The average crop is now 850 million bushels, i.e. nearly twice that of Canada, and now that Russia is once more a producing area, the United States' crop is rather under 20 per cent. of the world supply.

✓ **Maize** (corn) is grown on a far greater acreage than wheat, but is not exported to any great extent, being fed to stock, principally lard hogs and beef-cattle. It is also more widely used for human food in the States than in Western Europe, especially in the south. The maize belt lies to the south and east of the wheat belt, since a hotter and wetter summer is demanded. Thus the middle Mississippi Basin is the great corn centre, including the

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States of Iowa, Illinois, Indiana, Missouri, and Eastern Kansas and Nebraska. The great markets are consequently St. Louis, Kansas City, Omaha and Chicago, which are also meat-packing centres. The cold nights exclude maize from the irrigated areas in the arid regions. The average crop is 2,800 million bushels.

Oats are extensively grown both in the wheat and maize belts, but mainly as a supply crop. They also supply raw material for the large manufacture of breakfast-foods. The *barley* crop is large enough to allow of some export to the United Kingdom and Germany.

To the south of the maize belt (although there is some overlapping) comes the **cotton** belt, extending round the Gulf Plain from Eastern Texas, with its rich black prairie soil, through Arkansas and Mississippi (with deep alluvial "bottoms"), Alabama (with a very fertile limestone belt), Georgia and the Carolinas. The low sandy islands fringing Georgia and South Carolina grow "sea-island" (long staple) cotton, which is also obtained on the adjacent mainland. Cotton is usually associated with cheap negro labour, but very successful and profitable crops have recently been raised largely by white labour on the irrigated lands of the arid west, notably in the Salt River Valley, Arizona, and at Calexico, California, the variety being the long-staple American-Egyptian (Pima) cotton, spinning very fine counts, and the output nearly 300,000 bales. The United States produces 60 per cent. of the world's cotton supply, and if the Indian and Chinese crops, marketed and manufactured mainly in the East, are deducted, it will be found that Western Europe is dependent on the States for 85 per cent. of this essential raw material. It is a fact of importance that cotton manufacture is increasing in the States, with a consequent steady increase in the percentage retained for home consumption. This has averaged 50 per cent. during recent years, and the total consumption for 1928 was 100 per cent. higher than that of 1910, whereas the 1928 crop was only 50 per cent. higher than that of 1910. The same period has seen America making increasing purchases of raw cotton in foreign markets, especially of long-staple Egyptian varieties, since there is an increase in the spinning and weaving of the finer counts. The **cotton-seed** is a valuable by-product, yielding edible oil and cattle-food to the value of over £55 millions. Large sums of money are spent in fighting the Mexican boll-weevil, which constitutes a serious menace to, and tax upon the cotton industry, and has caused a shifting of the area of production westwards. The average crop is nearly 16 million bales, or 20 per cent. more than the average of ten years ago.

Somewhat overlapping the chief maize belt northwards, and the cotton belt southwards, come the leading **tobacco** regions of America, in Kentucky, Virginia, the Carolinas and Tennessee. Of the total American crop of 1,300-1,400 million lb., Kentucky yields nearly one-fourth and North Carolina now leads with one-third; the greatest market is at Louisville, Kentucky, while the leading port of shipment is Richmond, Virginia. Tobacco is also grown in many States to the north and south of this belt, e.g. the famous "perique" in Louisiana, near the mouth of the Mississippi. The valuable Sumatran leaf (for cigar wrappers) is grown under artificial shade (thin cotton sheets) in the Connecticut valley, and both Sumatran and Cuban leaf by the same means in Georgia and Florida. Pennsylvania and Ohio produce cigar fillers. The States produces 40 per cent. of the world's supply, and holds

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a practical monopoly in the export of varieties suitable for the cheaper smoking mixtures and cigarettes. Changes of social habit since the War have increased the demand for cigarette tobaccos at the expense of those suitable for mixtures and cigar fillers. Hence there has been a change in the centres of maximum production, the importance of Kentucky and Tennessee declining.

A valuable crop of very local distribution is **rice**, requiring prolonged heat and moisture. Formerly grown chiefly in the swamps of South Carolina and Georgia, it is now very important on the plains of Western Louisiana and Eastern Texas, where irrigation is easy, and on the irrigated lands of California. Farm machinery, instead of expensive hand-labour, as in the Orient, is employed, and the crop averages 40-50 million bushels, as against 25½ millions in 1913. This is more than sufficient to supply the home market, and there is some export from New Orleans.

Cane-sugar is grown on the swampy flood plain of the Mississippi in Louisiana, but although the summers are long and hot, the occurrence of frost in winter renders yearly planting necessary, and owing to the competition of Hawaiian, Philippine and West Indian sugar, the industry is declining, the average crop having fallen from 300,000 tons to 200,000 tons by 1920, and to less than 100,000 by 1928. The Americans, with their predilection for "candy" and "soft drinks," have a very high *per capita* sugar consumption (80 lb. a year). Hence in spite of the beet and cane production in the country, some 3 million tons must be made up by imports from abroad.

An industry which has made great progress during the last decade, especially as regards organization, and the grading and marketing of the product, is the **fruit** industry. The import was in 1913 in excess of the export, but now the reverse is the case, and the quantities of fruit canned and dried have more than doubled since 1910. California, with its "Mediterranean" climate, produces the greatest variety of fruits—grapes, peaches, apricots, plums, figs, besides olives, walnuts and almonds. The canned fruits have long been known on the European market, while the war-time scarcity allowed Californian raisins, dried peaches, apricots, pears and prunes to compete in Europe with those of the Mediterranean. Citrus fruits, especially *oranges* and lemons, are also largely produced, the more southern and therefore hotter and drier parts of the State being most suitable. Water is supplied by irrigation, and many irrigation areas are practising large-scale *vegetable* growing, e.g. lettuces, tomatoes, cantaloupes, asparagus. The **wine** industry which had hitherto flourished has been nearly killed by prohibition, since the foreign market for non-European wines is always restricted, but wine grapes still find a market, as a basis of home-made liquors.

A second fruit area, growing especially *oranges* and *pineapples*, is Florida, with its subtropical climate. The orange groves are liable to be damaged by frost, as cold winds sweep down the open plains from the north. Both fruit and vegetables are largely grown in such areas as allow of rapid marketing in the great industrial towns, e.g. *apples* on the south shore of Lake Ontario, tomatoes and apples in Delaware. The great apple district of the north-west (Washington and Oregon) is, however, remote from such markets, and hence fruit of high quality is grown for sale in Europe, the export being through Portland (Oregon).

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The acreage under **ground-nuts** (peanuts) and **soya beans** was very greatly increased during the War, owing to their high content of edible oil. The ground-nut can flourish in poor sandy soils (e.g. on the Atlantic coast plain) and in semi-arid regions (e.g. Texas and California), and serves also as hog-feed. The soya bean finds in the north and in the prairie regions a climate similar to that of North China and Manchuria, where it is so abundant. These crops are of peculiar value, in that, like all legumes, they add to the nitrogen content of the soil.

The *animal* industries of the States are of great importance both because of the enormous acreage of natural pasture on the high Western Plains and in the mountain zone, where cattle are raised, and sheep are grazed, and because of the abundance of food-stuffs, including bran, linseed, maize and cotton cake, in the agricultural belts farther east, to which many animals are moved to be fattened for the stock-yards. The maximum **pig** belt practically coincides with the maize belt, the products being pork and lard, packed at Chicago and elsewhere. Pigs are, however, raised for bacon in many areas, and in California they are grazed in the orchards producing the famous "peach-fed" hams. The total number of swine is about 55 millions, a proportion of about one pig to every two persons, which is higher than anywhere else in the world except in Denmark.

The arid and relatively cool pastures of the Northern Mountain States, and the slopes of the Rockies, are the best suited to **sheep**, and these animals are most important in Montana, Wyoming and Idaho, while they are very numerous also in those parts of Texas and New Mexico that are too dry for cattle. The estimated number in 1922 was 36 millions, representing a decrease of 25 millions on the figure at the beginning of the century, but it had risen again to 47 millions by 1929. Meanwhile the woollen manufacturing industry has also rapidly increased, so that Americans are appearing as large buyers in the world's wool markets. The improvement of the breed, however, has had a marked effect, the wool clip (over 300 million lb.) from the diminished flocks exceeding that of 1901. Australia had 85 million sheep (17 *per capita*) and a clip of 574 million lb. in 1917, and ten years later the figures were 99 million sheep (about 16 *per capita* of the increased population) with a wool clip of 865 million lb.

Cattle of all kinds number 56 millions, a decrease of 10 millions since 1920. Beef cattle are most numerous in the maize belt, while milch cows (total 22 million) assume the greatest importance in Wisconsin, Minnesota, Pennsylvania and New York State, the determining factors being the cooler and moister climate, resulting in rich pastures, and the proximity of the great industrial centres. The relative importance of cattle is greatest on the great ranches of the dry western plains, where agriculture is impossible, while recently they have come to play a leading part in the economy of the irrigation settlements, e.g., the Salt River and Yuma in Arizona, the Truckee-Carson in Nevada, the Shoshone in Wyoming. Here **alfalfa** (lucerne) is the chief crop grown, for it can be cut from three to six times a year, and is excellent for fattening cattle, and in the two latter States there are several times as many cattle as persons.

At present the American cattle produce a large surplus of meat and meat products for export, besides cheese and condensed milk. Two significant facts, however, call for notice. Whereas at the beginning of the twentieth century the ratio of cattle to population was as 10 to 11, it fell to a ratio

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of 10 to 16 at the close of the second decade, and to a ratio of 10 to 21 by the close of the third (1929). Moreover America is an increasing buyer of foreign meat and dairy products, the import reaching £3 millions in 1913 and £12 millions in 1919, a rise which represented more than a mere inflation of prices, for in 1927-8, at much lower prices, the import of animal foods was valued at £10 millions. Hence the United States must be looked upon as a diminishing source of supply of animal products. In spite, too, of the large numbers of live stock, the supply of **hides** and **skins** is far below the consumption of the leather industry, and these, especially goat-skins, are imported from all parts of the world.

In connection with the development of agriculture in America, the work of the State Department of Agriculture, one of the greatest scientific institutions in the world, is very important, the results of the latest experiments and research (e.g. in plant and stock breeding and the fighting of pests) being freely within the reach of every farmer. There are, besides, Agricultural Colleges in every State, where instruction is given practically free. The Federal Government also undertakes irrigation projects on a large scale, whereby millions of acres have been added and will be added to the productive area of the arid and semi-arid States.

The *fisheries* of the States are valuable mainly as a source of food supply at home, the annual catch being worth nearly £20 millions. The fish canneries also give occupation to a large number of people, and the products are worth a further £10-12 millions. A part of this output is exported. Of special note are the cod, herring and mackerel fisheries of Maine and New England (near the Newfoundland Banks), the oyster fisheries in the shallow bays between Cape Cod and Cape Hatteras, the herrings of the Atlantic Coast, and the salmon of Washington and Oregon.

The *lumbering* industry of the States is on a very large scale, the annual output being valued at £200 millions. The softwood forests (producing chiefly white pine) of the Great Lakes and New England, originally the most productive, have declined in output, and the greatest production now is of yellow pine from the southern (evergreen) forests, centring in Louisiana, Mississippi and Southern Arkansas. The second place is held by the Douglas fir, which is the most important tree of the vast forests of the Coast Ranges and Cascade Mountains in Washington and Oregon. The white pine of the north-east has third place, and the hardwoods (notably oak) of Kentucky, Tennessee, Northern Arkansas and Missouri (with Memphis as the great market) rank fourth. The National Forests comprise one-fifth of the standing timber of the United States, but they are principally on the Rocky Mountains and other ranges of the West, and have scarcely yet been drawn upon. It is significant that timber is being cut at four times the rate at which it is replaced by new growth, and of the original standing timber of the U.S.A. less than 42 per cent. remains. The manufacture of paper **pulp** has revived activity in the forests of Maine and Michigan.

In output of *minerals* the United States exceeds any country in the world, the only notable deficiencies being in respect of tin and nickel. The **coal** resources are greater than those of the whole of Europe, and the output in 1918 (a record year) was 604 million tons, or nearly 6 tons per head of population. That was 2½ times the output of the United Kingdom for the same year, but in 1913, the last year undisturbed by war conditions, the British

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output was 287 million tons, working out also at about 6 tons *per capita*. In 1927 the American output was 518 million tons, or just over twice the British output, and this works out at $4\frac{1}{2}$ tons per head of a population of 120 millions. The supply of **anthracite** (70–80 million tons annually) is obtained from one small field running south-westwards from Scranton, in Eastern Pennsylvania, and hence within easy reach of Philadelphia, whence it is shipped to various points on the eastern seaboard. The Appalachian bituminous coalfield stretches almost without a break along the inner margin of the mountains, from Pennsylvania to Alabama. Pittsburg stands where the Allegheny and Monongahela Rivers converge to form the Ohio, and these waterways are important coal carriers, while a canal system connects the Pennsylvania and West Virginia sections of the field with the Great Lakes. Hampton Roads (Chesapeake Bay) is an important point for the coast-wise shipping of West Virginia coal. In Kentucky the difficult topography renders the coal in many places almost inaccessible, and the next section of importance is near Birmingham (Alabama), whence there is water-carriage to Mobile on the Gulf.

The second large bituminous coalfield (of slightly inferior quality) underlies the prairies of Indiana and Illinois, and hence is very conveniently placed for Chicago, St. Louis, the Mississippi Valley and the Western Lakes. The fields of the western plains and the Rocky Mountains are of decidedly inferior quality, and mined only for local use. The Pacific Coast, too, is badly placed as regards coal, although there is some raised in Washington. The United States exports of coal are relatively small, representing (apart from bunkering coal) less than 9 per cent. of the quantity raised, the bulk going across the Lakes to Central Canada, for which it is the nearest supply.

In pre-war years the United States export of coal was only one-fifth that of Great Britain, whereas in 1920 the British export was only three-fourths the American. This year was, however, undoubtedly abnormal, and a proportion of the lost markets have reverted to Britain.

Second only to coal in importance, are the **petroleum** fields of the United States, the country again leading as regards the world's supply with nearly 70 per cent. of the total. The centre of greatest production is constantly changing, as new wells are bored, and the flow from others ceases. It has shifted from a belt running through Pennsylvania and West Virginia, to a belt running through Ohio, Indiana and Illinois, thence to Texas and California, and more recently to Kansas and Oklahoma. At present California, Texas and Oklahoma produce nearly two-thirds of the total of 900 million barrels (1928), while much smaller quantities come from the other States named. The oil is piped to tidewater on the east, Gulf, and west coasts and to Cleveland on Lake Erie. About 80 million barrels of crude oil are imported from Mexico (which has, however, large local refineries), Venezuela, Colombia, Trinidad and Peru. Oil-refining is consequently a major American industry, and ranks first, for example, in the list of industries in California as regards the value of the products. The export of refined oil in 1928 was 126 million barrels, going in greater or less quantity into almost every country in the world and serving as a useful means of giving America a footing in foreign trade. There was also an export of 19 million barrels of crude oil.

The United States has an exceedingly strong position as regards the world's **copper** supply, producing more than half the total throughout the

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present century. Chile, the second largest producer, has an output less than one-fourth that of the States, while the Belgian Congo and Canada rank next. The American output is from 800,000 to 850,000 tons annually, chiefly from Arizona, Utah, Montana and Nevada in the Mountain Belt, and from the southern shore of Lake Superior.

Lead ranks next to copper in point of value, and here too the United States leads the world, producing 600,000 tons, or one-third of the world-supply. The greatest output is from the Joplin District, on the borders

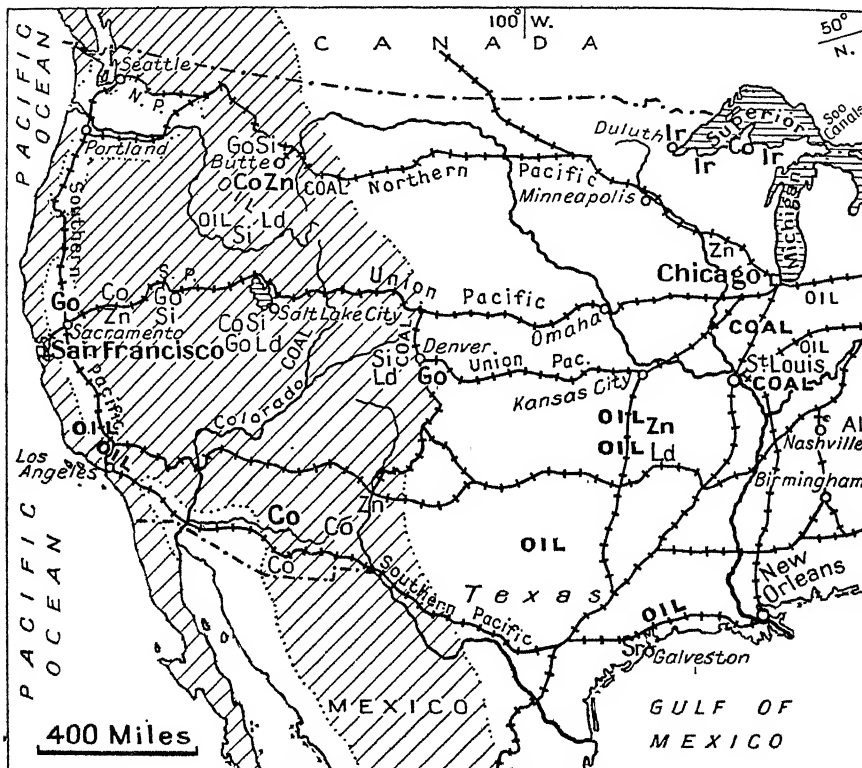


FIG. 86.—UNITED STATES: MINERALS.

of Missouri, Oklahoma and Kansas, one of the few metal mining areas on the Central Plains. Lead is also found in conjunction with silver in the Mountain Belt, the largest production being from Utah and Idaho.

Zinc, although not quite so valuable, is produced in practically equal quantities with lead, about 600,000 tons, no other country having so large an output, although German and Polish Silesia produce more than half as great a quantity. The Joplin District (Oklahoma and Kansas sections) is by far the greatest producer, but there is also a fair output from Colorado, Wisconsin and Idaho.

As regards **gold**, California and Colorado take the lead, followed by Nevada and Utah, but the output has fallen from $3\frac{1}{2}$ million ozs. to a little

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over 2 million in the course of the last ten years. This figure is, however, in excess of the Canadian output, and is one-fifth that of South Africa. The total **silver** output of 61 million ozs. annually may be compared with that of Mexico—80 million ozs. The abundance of ores and metals in the Mountain Belt, and the proximity of many minor coal basins, leads to large-scale smelting and refining at such centres as Butte (Montana), Denver (Colorado), and Phoenix (Arizona).

During the last ten years the United States has produced the bulk of the world's **sulphur** (over 2 million tons), mainly from Texas and Louisiana, and nearly half of the world's **aluminium**, the southern margins of the Appalachians being rich in **bauxite**, as is also Saline County, Arkansas. The works are at Knoxville, Maryville and Cleveland. In Florida there are large deposits of **phosphate** rock, with an output of nearly 3 million tons, which is readily shipped from Jacksonville.

The resources of the country as regards **iron ore** are ample, the output of pig-iron being limited only by the capacity of the blast furnaces. Five-sixths of the total of 60 million tons of ore is obtained from the favourably situated hematite deposits of Minnesota, Wisconsin and Michigan, lying just to the west and to the south of Lake Superior, and hence chiefly shipped via Duluth, Ashland or Marquette through the "Soo" Canals to the great smelting centres, such as Chicago, Cleveland, Buffalo and Pittsburgh. Iron ores also lie along the eastern margin of the Appalachian coal-field, reaching their most favourable development round Birmingham, Alabama, where they are consequently smelted. The Southern ores are self-fluxing.

Among the *manufactures* of the United States, the **iron and steel** industry takes first rank, both because of its great and varied development, and because it is in respect of this industry that British supremacy in foreign markets has been most seriously threatened or undermined. In 1913 Germany exported $5\frac{1}{2}$ million tons of iron and steel manufactures, as compared to 5 million tons from the United Kingdom, and $2\frac{3}{4}$ millions from the United States. In 1919 the United States exports had risen to $4\frac{1}{2}$ millions, those of the United Kingdom had fallen to $2\frac{1}{4}$ millions, and those of Germany were negligible. Tonnage figures, however, are less indicative than values, the present situation showing the struggle for supremacy with Britain, which exports iron and steel goods (excluding vehicles) to the value of 130 millions, against an export valued at £140 millions from the United States, £21 millions (largely pig-iron and unmanufactured steel) from France, and £90 millions from Germany. The United States has for long held the first place in the production of pig-iron, the positions in 1913 being France, 5 million tons; United Kingdom, 10 million; Germany, 20 million; United States, 30 million. During the war years, the American average was about 33 million (maximum $39\frac{1}{2}$ million), that of Britain about 9 million tons. In 1928 the United States output of pig-iron and of crude steel was in each case just six times as great as that of the United Kingdom, and rather more than three times that of Germany. This means that there was a production of nearly 38 million tons of pig-iron, and over 50 million tons of crude steel, the latter figure a record one. France, of course, now produces more pig-iron and crude steel than Great Britain. The output of *tin-plates* and *terne-plates* in the States is now about $1\frac{3}{4}$ million tons, with a value of about £33 millions, involving a large consumption of white metals. Among the great centres of the iron and steel industry, Pittsburgh, Chicago, Cleveland, Buffalo, Gary (Indiana) and Birm-

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ingham (Alabama) may be mentioned. Pittsburgh has naturally the dominating position, for the State of Pennsylvania, besides producing the whole of the anthracite output, produces also over one-fourth of the bituminous coal, including the best coking varieties. Pennsylvania produces 40 per cent. of the total output of *coke in the United States*, which has reached 52 million tons of this total, 92 per cent. is from by-product (as opposed to bee-hive) ovens, whereas the corresponding figure in 1920 was only 55 per cent.

Manufactures of iron and steel tend to follow their market, and since for the States the home market is of outstanding importance, agricultural machinery tends to be centred in the Middle West, at Chicago, Milwaukee and elsewhere; textile machinery is most in demand in New England, where Worcester (Mass.) takes the lead. The latter town has also a large machine-tool industry, as have Philadelphia, Cleveland and Cincinnati. Milwaukee, Pittsburgh, Philadelphia, New York and Schenectady make engines and electrical machinery; Philadelphia takes the lead in locomotives; Chicago, Pittsburgh, St. Louis and Philadelphia have great railway workshops; along the Delaware River there are *shipbuilding* yards from Philadelphia to Wilmington, while there are many yards on New York Harbour, and Newport News on the Chesapeake waters is very important; ships are also built at the leading Lake and Pacific ports, and on the shores of New England.

The shipbuilding industry of America is one that showed phenomenal growth during the War, and although, as in Japan, "uneconomic" yards, and wooden-shipbuilding yards, have closed down, the industry retains a world importance which it did not formerly possess. During the year 1919-20 there were built and documented 965 vessels of over 3 million gross tons, as against 104 of 243,000 tons in 1912-13, and the tonnage of vessels engaged in foreign trade was over six times that of the pre-war period. In 1922, however, only 120,000 tons was launched, and the figures for 1928 and 1929 showed no substantial increase.

The *automobile* industry of the States is the greatest in the world, since the number of people who can afford cars is so great, and the motor-van and motor-truck are in more general use than elsewhere. American cars also dominate the foreign market throughout the world, and in 1928 this export reached nearly £85 millions. Detroit is the leading centre for cheap cars.

The presence of inexhaustible supplies of water-power, at Niagara, in New England, and along the coast ranges of the Pacific, to mention but the most striking examples, has given great importance to *electrical* industries, and the output of current has been roughly estimated at 30,000 million kilowatt hours. Not only is electricity employed for manufacturing and for transport, but its domestic use for purposes other than lighting is more common in the States than elsewhere, hence there is a large market for electrical appliances as well as for machinery. In the absence of German competition the foreign market for these classes of goods widened, and the exports rose from £4 millions in 1914-15 to £16 millions in 1918-19, the present figure being £17 millions.

The *cotton* manufacturing industry takes the lead in the textile group, and the fact that, whereas in 1913 the imports of manufactured cottons exceeded the exports by £2½ millions, in 1920 the exports exceeded the imports by £55 millions, is an indication of the rapid development which has taken place. The present exports have a value of £26 millions, while

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imported cottons (and yarns) have a value of only £13 millions. The United States has rather more than one-fifth of the world's cotton spindles, ranking second only to Great Britain, while the consumption of raw cotton is greater than that of Britain. The American cotton industry is most important in New England, where it has long been established, and where water-power was a factor in locating many of the centres, although actually more power is now developed by steam than by electricity. Fall River, New Bedford, Lowell and Lawrence, all in Massachusetts, are among the leading cotton towns, and there is also a large centre at Philadelphia. Of more recent growth, and less important than the New England industry, because of the coarser fabrics produced, is the Southern cotton manufacturing region of Alabama, Georgia and the Carolinas. Here the raw material is locally produced, coal is mined, and electrical power can be developed along the "fall line" where the river-beds drop to a lower level on leaving the hard Appalachian rocks for the softer outcrops of the coast plain. Relatively cheap white labour is obtained from the somewhat unproductive mountain belt near by. American cottons are marketed largely in Latin America, and to some extent in China; latterly they have entered Canada more freely, and have replaced German goods in many tropical markets.

The *woollen* industry, like the cotton industry, has made a rapid advance, and as has already been mentioned, the States has latterly made very greatly increased purchases of foreign wool. Mills are very widely scattered over the industrial north-east, but Philadelphia is the leading centre, and there is a large output from the New England States. Although the finest products of English and French looms are in demand, the local mills are now able to supply tweeds, worsteds and dress materials of the highest quality. Knit goods, especially underwear, have a greater vogue in the States than in Europe. There is a very considerable *carpet* and *rug* industry.

✓ The *silk* industry employs nearly as many looms as do woollens and worsteds together, and raw material worth over £75 millions is imported, mainly from Japan. The United States also leads the world in the manufacture of *artificial silk* (from residual cotton fibres and wood pulp), and in spite of the greatly increased *per capita* demand within the country for silk goods, especially silk *hosiery*, an export trade worth £3-4 millions, going mainly to Canada and Latin America, but to some extent also to Australasia, British South Africa and Norway, has developed.

The *linen* industry of the States is negligible, except as regards the large manufacture of collars and cuffs, centred at Troy, New York State. Hence Irish linen is among the leading articles imported from Britain. The coarser fibres, jute, hemp and sisal, are imported to the value of £20 millions for manufacturing purposes, but the import of bags, hessians, mats and other goods of this class reaches almost as high a figure.

✓ The ready-made clothing industry is located in New York, Chicago, and other great cities, and is of domestic importance only, although the value of the output is to be estimated in hundreds of millions sterling.

✓ The *leather* industry plays an important part, both in domestic and foreign trade, since the annual consumption of boots and shoes is estimated at well over 350 millions, practically all of American make, while some £30 millions is spent on the import of foreign hides and skins, and approximately £75 millions is received for glazed kid, calf-skins, sole leather, boots and shoes and other leather articles sold abroad. British India is drawn upon very

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largely for goat-skins. The forests of oak and hemlock, supplying tanning bark, and the patent chrome process which is the basis of the great leather industry of Philadelphia, are factors determining the premier position which the United States holds as regards this manufacture.

For raw material for the enormous *rubber* industry, foreign sources must be drawn upon entirely, and whereas the States formerly purchased largely through London and Hamburg, American buyers now purchase direct in Singapore and other markets. Over $\frac{1}{4}$ million tons of crude rubber is the average import, and the exported goods were valued (1928) at £20 millions, or over nine times the export of 1914. Half of this value was for automobile tyres alone, and there were large increases in belting, hose, packing and electrical supplies, besides rubber boots and shoes, which, however, have a far greater vogue in the States than overseas, especially in districts where there is much winter snow. These boots and shoes are practically all made in Massachusetts, Connecticut and Rhode Island, where also a large proportion of the leather boot and shoe factories are situated.

The advance made in the *chemical* and allied industries may be gauged from the fact that whereas in 1913-14 the excess of imports over exports in this class was £14 millions, in 1920 the exports were in excess to the value of £6 millions; and while with the reappearance of German products this figure was naturally reduced, exports have remained in excess. The most interesting change, apart from the production of medicinal and photographic chemicals, has been the firm establishment of the manufacture of *dyestuffs*, formerly of quite minor importance. Some £100 millions of new capital was employed in this branch of the industry during the War, and the output was increased nine-fold. The centres include Wilmington, on the Delaware River (where are great explosive factories), Buffalo and Brooklyn, New York. The States are independent, when need arises, of foreign supplies of potash, this product being extracted during the War from kelp (seaweed) on a large scale at San Diego, California, and being abundantly present in the lakes of Nebraska and in Texas. The supplies of common *salt*, so essential for the stock-rearing and meat-packing industries, as well as for the manufacture of *heavy chemicals*, are widespread and ample. Of the $7\frac{1}{2}$ million tons produced, nearly half is from the States of Michigan and New York (Syracuse), but there is also an output from Kansas, Texas, Louisiana, West Virginia, Utah and California. The last-named State also produces large supplies of *borates*. The enormous local supply of animal fats and of cotton-seed oil led to the establishment of *soap* and *candle* works, and *vegetable-oil* refineries, and these goods are now also on the export market. The States are increasing the home supply of oil-seeds and nuts, and are now direct buyers of copra from the Pacific, soya beans from Manchuria, ground-nuts and palm oil from West Africa, and of foreign oil-seeds generally. The crushing mills are usually located in the cotton-belt, where the industry took its rise.

The combination of timber and water-power in the north of New England and of New York State, gives to these regions the leading position in the wood-pulp and *paper* industry, while the better papers and rag papers are made farther south in the textile region. So great, however, is the consumption of paper, especially of newsprint (there are 23,000 periodicals alone), that there is a very large import of paper and pulp from Canada, where also many American manufacturers have located new mills.

The tobacco cultivation naturally gives rise to a large scale manufacture

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of *cigarettes*, especially at Richmond and St. Louis, while *cigars*, which compete with those of Cuba, are manufactured at Tampa and Key West.

The southern pine forests of the Gulf States and Atlantic Coast Plain give rise to a large scale production of *turpentine* and *resin*, which in their turn are used in the very important *paint* and *varnish* industries of the north-eastern industrial area.

Trade Relations.—In view of the numbers and wealth of the farming and mining communities within the States, it must always be the first task of the American manufacturer to supply this expanding home market, and the capturing or holding of foreign markets is of less importance than the magnitude of the various industries at first suggests. Moreover, the excess of exports over imports, except in so far as it represents interest on foreign capital invested in the States (which has been greatly reduced), or new American investments of capital abroad, must react, through the adverse exchange, upon prices until it is automatically reduced. Hence American competition, though a factor to be reckoned with, does not constitute a menace to the manufacturing interests of Western Europe.

The vast open plains of America offer ideal conditions for railway development, nor do the Rockies present any formidable barrier. The steepest gradients are met with in the Appalachians and the New England Mountains, Boston being seriously handicapped as a port for this reason. The result is the great concentration of traffic through the Hudson Valley route, where very serious congestion has occurred, for the extension of track and rolling-stock has not kept pace with the increase of freights carried. The construction of a deep-water barge canal (in place of the old Erie Canal) from New York to Buffalo gives potential relief to the railways to the extent of 20 million tons during the season of open water, the minimum depth being 12 ft., but the actual tonnage transported is far below this figure owing to conflict of interests as in the case of the canals of Great Britain. The tonnage passing through the canals of the upper Great Lakes is greater than that through the Suez Canal: the equipment of the Mississippi waterway has been improved, and a ship-canal connects New Orleans directly with the Gulf of Mexico.

Philadelphia ranks second to New York as a port, and Boston third. Baltimore has one of the best harbours on the Atlantic, and deals with bulk cargoes both to and from the Pittsburgh and Chicago industrial areas. New Orleans has recently become more progressive, and has greatly increased its international trade. It is the leading Southern outlet for grain, lumber and Northern manufactures, and does a large West Indian business. San Francisco takes the lead on the Pacific coast, but Seattle, on Puget Sound, lying more than 200 miles nearer Yokohama, is of rapidly growing importance, and Portland (Oregon), with a deep river harbour, does a large trade. Galveston, on the Gulf of Mexico, is connected by ship-canal with Houston, and is the outlet for the vast cotton crop of Texas. All these ports have first-class accommodation and equipment. Chicago, for example, on Lake Michigan, has 30 miles of docks.

The gross tonnage of United States iron and steel sea-going and Great Lakes vessels in June, 1928, was 13.6 millions, against 1.8 millions in 1914, and represented over 20 per cent. of the world's total.

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The classes of goods imported into the United States in 1927-28 to the value of over £25 millions were as follows :—Sugar, raw silk, petroleum, crude rubber, hides and skins, coffee, paper pulp and newsprint, several of which can be supplied in bulk by Latin America (Mexico, West Indies and South America), from which countries there was an actual total import of £200 millions. Other articles of secondary, yet considerable, importance which these countries can and do supply are wool, cacao, meat, cattle, tobacco, tropical fruits, winter vegetables, and cabinet woods. This region is climatically the complement of the United States, and hence the natural field in which a strong and permanent trade should be established. Since these imports in part represent the returns on very heavy capital investments in Latin America, the return trade is not so great, amounting only to £153 millions in the same year, and including food-stuffs as well as manufactured goods. Porto Rico and Hawaii also supply sugar and other tropical food-stuffs to the value of over £50 millions, and purchase United States goods to the value of £34 millions, but as they are technically territories of the United States these figures are not included under the foreign commerce of that country.

Other countries which the States draws upon for food or raw material in bulk are Japan (silk, tea), India (jute, hides and skins, tea), Malay (rubber and tin), Philippines (sugar and hemp), China (soya beans, wood oil, silk), Oceania (copra), Australasia (wool), Canada (paper, nickel), Egypt (cotton). These countries buy in return American oil, certain provisions, and also manufactures, but, broadly speaking, they rely normally to a far greater extent on Europe for manufactured goods. From Asiatic countries alone the States import goods to the value of £240-£250 millions, the exports to Asia being less than half this value.

Even under normal conditions the trade between the United States and Europe is one-sided in the opposite sense, since in return for raw cotton, grain, meat products, tobacco, and mineral oil, only highly specialized manufactures, luxury articles, and specialized food-stuffs and beverages can find a market in the States. American freights, however, were formerly almost entirely carried on European bottoms, much European capital was invested in the States, money was sent away by European immigrants, and large sums of money were spent by American visitors to Europe, all factors tending to redress the disparity of merchandise. Prohibition has destroyed the trade in wines and spirits. America has now her own merchant marine. American capital is invested in Europe, while, until Russia is completely restored, the demand for grain, oil and meat products remains abnormal. Thus, whereas in 1912-13 the United States imports from Europe were valued at £178 millions (of which the United Kingdom supplied one-third, and Germany nearly one-fifth), the imports in 1918-19 were valued at £74 millions, of which Great Britain supplied over one-third and France one-sixth. On the other hand, United States exports to Europe in 1912-13 were valued at £296 millions, of which the United Kingdom took rather under one-third and Germany nearly one-fourth, while in 1918-19 the figure reached £929 millions, of which the United Kingdom took nearly half, France nearly one-fifth, and Italy one-ninth. In the year 1928 the United States exports to Europe fell to £460 millions, while the total value of European imports was £250 millions, of which under one-quarter came from the United Kingdom. Germany in that

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year sent goods in America to the value of £42 millions (against £24 millions in 1920), and this made up 17 per cent. of the total.

General Information.—The unit of currency in the United States is the dollar, of par value 49·32*d.* (approximately 4*s.* 1½*d.*). The gold dollar is of 25·8 grains, ·900 fine, and parity is maintained between gold and silver. Of the currency actually in circulation on December 1, 1919, over 50 per cent. was in Federal Reserve Notes and Gold Certificates issued against adequate gold reserves; 15 per cent. was in gold coin, and 7 per cent. in silver or silver certificates, besides Bank Notes and “Greenbacks.” The weights and measures are as in Britain, except that the *cental* of 100 lb. replaces the cwt., and the short ton of 2,000 lb. is, in certain trades, used instead of the long ton of 2,240 lb. The bushel is 0·9692 of the Imperial bushel. The metric system is to be made compulsory. British Banking establishments having branches at New York include: The Bank of Montreal, the Royal Bank of Canada, the Hong-Kong and Shanghai Banking Corporation, and the Anglo-South American Trust Company. The National City Bank of New York and the International Banking Corporation have branches in London, Europe, Latin America and the Far East.

Mails from London reach New York in 6–8 days, San Francisco in 10–12 days. There is a British Consul-General at New York, and Consular representatives in all the leading cities. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy.

URUGUAY

Area and Population.—Uruguay is one of the smaller South American Republics, having an area of only 72,000 square miles, and a population of 1½ millions. The people are, however, mainly of European descent, and the per capita foreign trade is high—about £22. The principal city and seaport, Monte Video, has nearly half a million inhabitants, but other cities are only small, including Paysandu and Salto, each with about 30,000 people, and Mercedes, with 23,000. Over 10 per cent. of the population is of foreign (chiefly Spanish, Italian and Brazilian) birth.

Position and Climate.—Uruguay has the very great advantage of being situated on the Plate estuary, which forms its southern shore. Its western boundary, separating it from Argentina, is the river Uruguay, navigable below Salto. To the north lies Rio Grande do Sul (Brazil), and to the east the South Atlantic Ocean. Lying between latitudes 30° S. and 35° S.—i.e. in a similar position to South Carolina and Georgia in the United States—Uruguay possesses every climatic advantage. The summers are hot, but not excessively so, the winters are warm, and the rainfall, although moderate, is well distributed through the year. Thus there is, normally, no season either of drought or cold to check agricultural work, or to render it necessary to house stock and feed them artificially. Occasional disastrous droughts do, however, occur, and locusts are often a scourge.

General Physical Conditions.—Uruguay is a rolling plain, rising to nearly 2,000 ft. above the sea in the north-east, and having a general slope inland, so that it is drained south-westward to the Uruguay, by a

Uruguay.

tributary river, the Río Negro. The plains are treeless pasture land, varied towards the hillier north and along the rivers with woods of Brazilian pine, palms, and evergreen trees. Hence, as in Argentina, nature offers no barriers, whether of steep slope or tangled forest, to the rapid development of lines of communication. The short Atlantic seaboard is fringed by lagoons, but the land overlooking the Plate estuary is higher lying, and the mount from which Monte Video takes its name rises to about 500 ft.

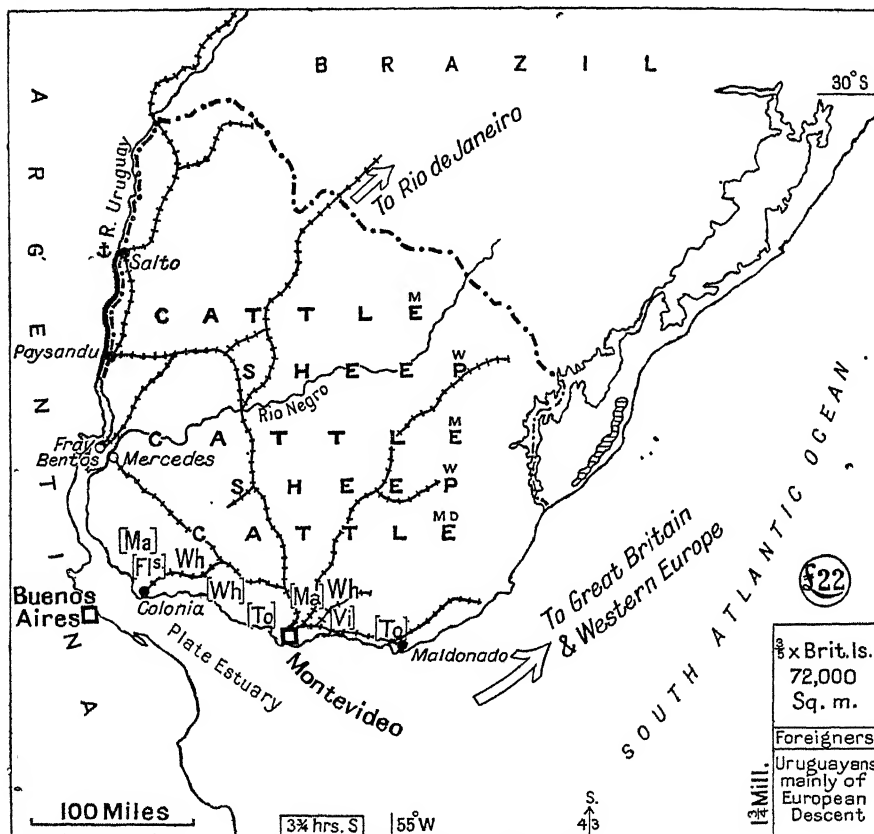


FIG. 87.—URUGUAY.

Human and Economic Conditions.—The development of Uruguay has taken place mainly in the belt in which water transport is available, that is to say in the belt along the Uruguay and Plate rivers. The staple product is horned **cattle**, which number 8 millions, and furnish material for the old-fashioned *saladeros* and for the modern *frigoríficos* and meat-packing establishments which are the basis of the prosperity of Monte Video, on the Plate, and of Fray Bentos, Paysandu and Salto on the Uruguay. There is also an export of live cattle to Argentina. **Sheep** are an important secondary staple, for although their numbers have shown a marked decline (from 26 to 14 millions, although estimates differ widely), the breed has

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been greatly improved by imported pedigree stock,^{*} and the *estancieros* profited by the very high price of wool until the slump of 1920.

The number of persons engaged in agriculture, and the acreage under crops, shows a steady increase, the greatest attention being paid to *wheat*, *maize*, and the *vine*, which yield staples of daily consumption by a population mainly of Spanish and Italian origin. *Tobacco* is also grown for local use, oats and linseed for fodder crops. The leading agricultural provinces are Colonia, Canelones, San José and Minas, lying along the shore of the Plate estuary. The success of several large estates devoted to dairying, notably those in the hands of the Swiss Colony in Colonia, point to a future for this industry as the labour supply improves.

Trade Relations.—The export trade is almost entirely of animal products—meat and meat extracts, hides, wools and fats—which normally find their market in Britain and Western Europe, either directly or via Argentina. The United Kingdom, Germany and France are still the largest purchasers as they were prior to the War, but the figures since 1918 show the United States, Italy, and Spain taking a greatly increased share of Uruguayan produce.

The imports, which include every variety of manufactured goods, previously came in almost equal value from Great Britain and Germany, France, too, having an important share in the trade. The proportion of goods of British origin has materially decreased, and a very large volume of trade has been captured by the United States, which now furnishes one-third of the imports. Germany has now the third place, and Argentina the fourth. Examination of the import list shows that the expenditure on petrol, fuel oil and kerosene is nearly three times that on coal, a fact that explains the increasing value of United States trade. American motor-cars, too, are in good demand, for there is a good national road system. Uruguay is a market for Gulf and Brazilian timber, for Argentine sugar, potatoes and Maté tea, and for such food-stuffs as olive-oil and fish.

The value of the imports into Uruguay is about three-fourths that of the exports, the average being £15½ millions and £21 millions respectively. A drop of £9 millions in exports in the year 1920 reflected the return to more normal conditions in the wool market.

The railway system (almost entirely British owned) focuses on Monte Video, whence three trunk lines run to the northern frontier, one following the bank of the Uruguay, and another linking up with the Brazilian system, and thus affording a through route to Rio de Janeiro.

Vessels drawing up to 28 ft. can lie alongside the wharves of Monte Video, which has excellent port facilities. Vessels drawing 20 ft. can reach Fray Bentos on the Uruguay River, and there is a minimum of 15 ft. at Paysandu, still farther up-stream.

General Information.—The language^{*} spoken in Uruguay is Spanish, and the people are Roman Catholics. The supply of electricity for any purpose is a State monopoly. The official theoretical monetary unit is the gold *peso nacional*, of which 4·7 are equal to a pound sterling. No Uruguayan gold is, however, coined, paper money, silver, and foreign gold being in actual circulation. The metric system of weights and measures is adopted, and its use is compulsory. There are four British banks at Monte Video: the British Bank of South America, the Royal

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Bank of Canada, the Bank of London and South America, and the Anglo-South American Bank. There are also German, French, Spanish, Italian and New York banks. Mails reach Monte Video in 17-22 days.

There are British Vice-Consuls at Monte Video and Paysandu. Uruguay is a member of the League of Nations.

VANCOUVER ISLAND

See **Canada**, p. 95.

VENEZUELA

Area and Population.—The Republic of Venezuela, with an area (394,000 square miles) rather more than three times that of the British Isles, has a population of only 3 millions, which is equal to about that of the Irish Free State. The greater part of this population is, however, concentrated in the north of the country, in a fairly narrow zone readily accessible from the coast. The only considerable city is Caracas, the seat of government and Federal Capital of the twenty United States which comprise the Republic: it has a population of 135,000. The second city is Maracaibo, with 75,000 inhabitants, the capital of the State of Zailia, in the west of the Republic. The development of the Venezuelan oil-fields has naturally caused a rapid expansion in value of the overseas trade, which now stands at £31 millions or over £10 a head, with exports somewhat in excess of imports.

Position and Climate.—Venezuela lies along the southern shore of the Caribbean Sea, its seaports being due south of those of New England and Nova Scotia, a fact reflected in its growing trade relations with the United States and Canada. The whole country is within 12° of the Equator, that is to say, is in the same latitude as Southern India and Ceylon. Consequently the lowlands are exceedingly hot all the year round, and the range of temperature is small. The north-east trade winds blow at all seasons, and (as in India) the summer months have drenching rains, while from October to March, when the sun has moved south, there is a well-marked dry season. In no part of the country, save the extreme north-west, is the total annual rainfall less than 40 in., and there is rarely any deficiency of water, save for short periods.

Physical Conditions.—The dominating feature of the relief is the great spur of the Andes Mountains, which enters the country from the south-west, and sweeping round, runs eastwards parallel to the north coast, until it terminates in Trinidad, which is separated only by a very narrow strait from the mainland. A second spur runs northwards, forming the western boundary of the State, while in the angle between these two mountain chains lies the great depression holding the Gulf and Lake of Maracaibo, a large and important sheet of water opening to the Caribbean Sea. At present a dangerous bar prevents the access of large vessels from the Gulf to the Lake, and it is proposed to cut a canal at this point. The fact that from the eastern and western shores of this Gulf and Lake, and also from

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the north coast of Venezuela generally, the land rises rapidly to considerable elevations has several important consequences. The climate of the higher ground is a pleasant and healthy one, so that here the residential districts are found, only those persons engaged on the plantations or working at the seaports having their homes in the low-lying districts. Caracas, the capital, stands at an elevation of 3,000 ft. behind the seaport of La Guaira. The temperatures all the year round in Caracas are similar to those enjoyed during a fine July or August in the English Home Counties, whereas in La Guaira the climate resembles that of Colombo in Ceylon. Valencia, until recently the second city of Venezuela, has a similar position with regard to Puerto Cabello. An obvious disadvantage of such locations

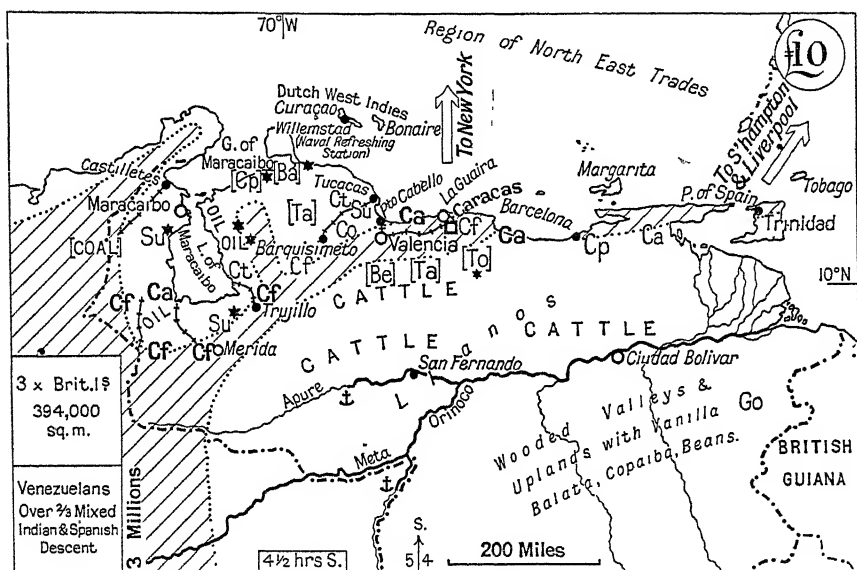


FIG. 88.—VENEZUELA.

is, of course, the expense of constructing railways and gently graded roads up the abrupt slopes, and the consequent heavy freight charges. But besides affording a cooler climate, these Andean spurs, with their rich virgin soil, offer ideal sites for coffee plantations. They are clothed naturally with dense forests, tropical at the base, temperate at higher altitudes, which yield cabinet and hardwoods, besides wild vanilla and rubber.

To the south of this sweep of mountain country lies the Basin of the Orinoco. This rolling plain was long ago described by Sir Walter Raleigh as having the appearance of an English park, its natural vegetation of grasses being diversified by clumps of trees. The grasslands are known as llanos, and have many points in common with the African savannahs, as found, for example, in Northern Nigeria and the Egyptian Sudan. The natural outlook of the Llanos region is eastward to the Atlantic, for a great navigable waterway, formed by the channels of the Apure and Orinoco

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rivers, runs across it in a straight line from the Andes to the ocean. The Orinoco, however, enters the sea by an intricate network of water channels of no great depth, forming a vast delta clothed with swamp forest. This delta, like that of the Ganges, affords no natural location for a river port or ports such as those which have played such a great part in the development of the Plate region. In the dry season, too, navigation of the river is difficult.

To the south-east of the Orinoco is a hilly region, rising towards the Guiana highlands, which is more richly wooded than the Llanos, and is of the same geological structure as the metalliferous uplands of Guiana.

Human and Economic Conditions.—The coastal lowlands, and the lower slopes of the mountains, are suitable for the growth of plantation products, including *cacao*, *sugar*, *cotton*, *bananas*, *coco-nuts* and *coffee*, the last named at an elevation of about 1,500 ft. above sea-level. The lack of an efficient system of roads and railways early determined **coffee** as the chief money crop, for owing to its high value relatively to its bulk, it can be profitably carried on pack-mules to the nearest seaport or railhead. **Cacao** beans, with similar qualities, take the second place. In recent years, however, the Government has adopted a very progressive road policy, with the result that there is a large and rapidly increasing mileage suitable for transport by motor-truck. The **sugar** industry received an impetus owing to the general shortage produced by the Great War, and several new mills and refineries were built. A beginning has been made, too, with textile manufactures: cottons for the home market are woven of home-grown material, and gunny sacks to hold the coffee, cacao, etc., are made from coarser local fibres.

The quantity and value of the coffee exported varies considerably, owing to the incidence of good and bad seasons, but the average value is about £3 millions. Venezuelan cacao is of exceptionally good quality, and the export has rapidly increased, its value being now about £1½ millions annually. The sugar and cotton crops are consumed locally, and the fruit industry (mainly *bananas*), in which Venezuela shares with the whole Caribbean seaboard, is as yet not fully developed.

The well-grassed llanos region has obvious possibilities as a stock-raising (*cattle*) area, and the industry has lately made some progress, the number of animals being over 2 millions. Ciudad Bolivar is the chief commercial centre, standing on the great west to east waterway, but so far the service of steamers is poor. San Fernando, about 300 miles farther up stream, is in an exceptionally rich grazing district. The relatively primitive state of the ranching industry is shown by the fact that the *hides* of the animals form the chief export. Owing, however, to the gradual improvement of communications with the populous north, meat finds a home market, and the ranches immediately to the south of the northern mountain range are prospering. An important advance is marked by the establishment of a meat-packing plant at Puerto Cabello. The llanos region needs an increase of population before the ranching industry can make any great strides, but both the immigration and the local growth of Venezuelan population are small. When once the country begins to be systematically developed, it will be found profitable to combine stock-raising with the growing of maize, alfalfa and other crops that can be used as fodder.

Venezuela.

In the absence of a port on the Orinoco delta, Port of Spain in British Trinidad is the collecting and distributing centre for the llanos region. Here the cargoes, which include wild rubber (*balata*) from the forests to the south and south-east of the grasslands, are transhipped from the coasting and river vessels to ocean liners or tramps. The value of this transit trade is about £1 million. Foreign vessels are not permitted to engage in the coastwise trade or on the internal waterways of Venezuela.

The whole northern zone of Venezuela is locally rich in fuels, like the island of Trinidad which is structurally continuous with it. **Asphalt** has long been dug at Lake Bermudez, and is shipped to the United States, while small **coal**-fields are worked, notably at Coro just east of the Gulf of Maracaibo. More important than either are the **oil**-fields round the Lake of Maracaibo, which during the last ten years have had a rapidly mounting output, which now at 105 million barrels, places Venezuela second on the list of producing countries. Specially built oil-tankers cross the bar that impedes entry into Lake Maracaibo. Refineries at S. Lorenzo deal with a proportion of the oil on the spot, but large quantities go to the refineries of the United States, Mexico and Curaçao. *Copper* ore is mined and sent abroad, and *magnesite* is worked on Margarita Island, where also *pearls* are fished under Government licence.

There are **gold** mines in the south-eastern hill country, and although the best known of these are practically worked out, there has recently been a revival of activity and the output has reached £ $\frac{1}{4}$ million annually. The woods of this little-known region yield wild rubber, chicle (for chewing gum) and dyewoods.

Trade Relations.—The coffee and cacao (for chocolate and cocoa) of Venezuela go very largely to the United States, which has an enormous consumption of both articles. France, Germany and the Netherlands are also very important customers. Great Britain ranks below the above-mentioned countries as a consumer of Venezuelan products, but stands second only to the United States as supplying imported goods. Almost every kind of manufactured article is in demand, including besides clothing, furniture, luxury goods, hardware, glassware, such commodities as motor-cars, trams and electrical fittings for the up-to-date cities, in addition to agricultural and other machinery and construction material for the oil-fields.

Vessels drawing up to 26 ft. can discharge at the wharves of La Guaira and Puerto Cabello.

General Information.—In pursuance of the Canadian policy of establishing commercial relations with Tropical America, the Royal Bank of Canada has opened branches at Caracas and elsewhere. The (British) Anglo-South American Bank, two United States banks, and a Dutch bank, have also opened branches in the capital city.

The language spoken in Venezuela is Spanish, and the State religion is Roman Catholic. The official monetary unit is the *bolivar*, which corresponds to the gold franc, of a par value 25.25 bolivars to the pound sterling. The metric system of weights and measures has been adopted.

The mails are carried by various lines, via Barbados and Trinidad or Curaçao, and take about 17 to 20 days in transit. There is a British Consul at Caracas; Vice-Consuls at Maracaibo, Bolivar, La Guaira and Puerto Cabello. Venezuela is a Member of the League of Nations.

VERDE ISLANDS, CAPE.

General Conditions.—The Cape Verde Archipelago is a Portuguese possession administered by a Governor, and lying within the tropics about 300 miles from the west coast of Africa. The area of the group (ten islands) is about 1,500 square miles, and the population 130,000. The capital is Praia, on São Thiago, with 21,000 inhabitants, which is an important cable station between Europe, South America and West Africa. The chief commercial centre is, however, St. Vincent, one of the smaller and more northerly islands. This is also a cable station, and ships call in large numbers for bunker coal, fuel oil, and for miscellaneous supplies. These form the main items of import trade, which amounts to about £ $\frac{3}{4}$ million, and is largely in English hands. The exports are inconsiderable. The islands lie in the trade wind belt, and like the neighbouring parts of Africa suffer from a marked deficiency of rainfall. Hence cultivation, e.g. of *fruit*, is limited to a few favoured areas, and to the valleys of such perennial streams as descend from the volcanic mountains of which the archipelago is comprised. *Salt* is produced for export. Money, weights and measures are as in Portugal, and a Portuguese dialect is spoken, but many of the business community also understand English. Mails arrive in 9–15 days. There is a British Consular Representative at St. Vincent.

VICTORIA

See **Australia**, p. 28.

VIRGIN ISLANDS (U.S.A.)

Area and Population.—The Virgin Islands, of U.S.A., situated close to her possession of Porto Rico, were bought by the American Government from Denmark in 1916 for £5 millions. They are administered by a Governor, under the Navy Department, Danish laws, taxes and customs remaining in force. The area is 132 square miles, and the population 26,000, of whom more than half live in three cities: Charlotte Amalia on St. Thomas, the most important island, Christiansted, and Frederiksted on St. Croix.

General Conditions.—The products of the islands, including sugar, rum, and *bay rum*, are relatively unimportant. St. Thomas is of strategic importance. It has a fine harbour, and commands a point of entry into the Caribbean Sea, *en route* for the Panama Canal. It has a coal-ing station and large docks, and is much visited by shipping in the West Indian Seas. The United States has established in addition an oil-bunkering station, and powerful wireless stations at St. Thomas and St. Croix.

WEI-HAI-WEI

General Conditions.—The Chinese sea-port of Wei-hai-wei, including with contiguous territory 285 square miles, was leased to Great Britain in 1898. It is administered by a Commissioner, and has a popula-

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tion of about 155,000, chiefly Chinese. Situated near the north-east extremity of the Shantung Peninsula, it is a flying naval base, and a depot for the China Squadron of the British Navy. The trade, exclusive of government stores, is largely transit, and is valued at about £2 millions. Cotton piece goods and rice are imported, ground-nuts and the oil thereof (partly expressed locally) are exported. Mails reach Wei-hai-wei *via* Shanghai, in 36-40 days. The currency is in dollars worth 2s. 4d.

WESTERN AUSTRALIA

See **Australia**, p. 28.

WINDWARD ISLANDS

See **British West Indies**, p. 92.

WÜRTTEMBERG

See **Germany**, p. 200.

YUGOSLAVIA

Area and Population.—The Kingdom of the Serbs, Croats and Slovenes, known as Yugoslavia, is ruled over by a monarch who was formerly King of Serbia. The territory comprises the former Kingdoms of Serbia and Montenegro; the Austrian Provinces of Bosnia, Herzegovina and Dalmatia; the Hungarian Provinces of Croatia and Slavonia, with part of the Hungarian Banat; the greater part of the Austrian Province of Carniola, with the fringes of Styria and Carinthia. The boundaries are roughly coincident with the extension of the Yugoslavs, or peoples of South Slavonic race, but there are Yugoslav minorities in adjacent parts of Hungary, Greece, and Italy, while groups of Magyars, Bulgars and Albanians are to be found in the new State. The Serbian tongue is everywhere understood, although the Slovenes speak a dialect of their own. There is, however, a lack of uniformity in the written language, and in the religion of different sections of the population. Briefly, in the west, the Roman alphabet (i.e. as in England) is used, and Roman Catholicism prevails, while in the east, the Russian (based on Greek) alphabet is used, and the people are of the Greek Orthodox faith. The area of Yugoslavia is about 96,000 square miles, and the population 12 millions. The general outlook of the country is towards the central Danubian Plain, hence Belgrad, at the Save-Danube junction, with 250,000 inhabitants, is a fairly well-placed capital city, while Zagreb (Agram) farther west, where the Save debouches from the mountains, forms a secondary traffic centre with 100,000 inhabitants. Other towns, such as Sarajevo, Uskub (Skoplie), Monastir (Bitolia) are small and of local import-

Yugoslavia.

ance only. A new Yugoslav University has been established at Ljubljana (Laibach), near the western frontier, but at present the standard of education is not high and a majority of the peasantry are illiterate. The character of the population determines a relatively small external trade—£50 millions, or little more than £4 a head.

Position and General Physical Conditions.—Yugoslavia occupies the north-west section of the Balkan Peninsula, overlooking the Adriatic Sea westward and bordered by Bulgaria to the east. On the south lie Albania and Greece: on the north, Austria, Hungary and Rumania. Save that it does not extend so far southward, the country lies roughly in the same latitudes as Italy, Belgrad being about as far south as Genoa. As in Italy the southern part of the country is mountainous, while the chief plain lies in the north, but in the case of Yugoslavia, this plain is only a portion of the great Hungarian or middle-Danubian Plain, and no natural or easily defensible frontier line separates Yugoslavia from her northern neighbours. The drainage of the plain is carried eastward by the Drave-Danube system, and by the Save, which runs along the edge of the mountain zone from which it receives a large number of tributaries. The valleys of these tributaries—notably the Bosna and Morava—are the main areas of cultivation, and the main lines of communication in the mountain belt, and the fact that the majority open northwards gives a Central European, and not a Mediterranean, orientation to Yugoslav affairs. There is, however, a narrow belt—very mountainous—which overlooks the Adriatic and drains to that sea, and where the valleys have the typically hot dry summers of southern Italy. Here the ridges are but scantily wooded, as limestone formations, which tend to be dry, predominate. Elsewhere, however, the mountains are well watered and well forested, and their timber is a valuable asset. The northern plain and associated valleys have the hot summer and somewhat severe winter of Central Europe generally, with moderate summer rains. A region calling for special mention is the Upper Vardar basin, which opens out to Greek Macedonia. At the mouth of the Vardar valley stands Salonica, a port coveted by the Serbs, since it is the natural gateway from the Balkan region to the Near East, the Morava and Vardar valleys together cutting a great north to south trough (serving as a route-way), across the peninsula.

Human and Economic Conditions.—The Yugoslav State is essentially agricultural, nearly nine-tenths of the people being peasant-farmers or landowners. Agriculture is, however, in a very backward state, farm implements being usually of a primitive type, while very little attention is given to manures and fertilizers. The only exception to this state of affairs is on the plains of Croatia and Slavonia (formerly part of Hungary) where, side by side with the present holdings, there were large estates which were scientifically managed. The workers on these estates gained an insight into modern methods, and the small owners, too, given credit facilities, are sufficiently intelligent and well-educated to improve their land where possible. Thus, broadly speaking, the new State, supposing an enlightened governmental and educational policy to be pursued, is likely to produce food-stuffs in much greater quantity than was formerly the case.

Maize is the leading cereal, and is grown both on the plains and in the

Yugoslavia.

valleys; it serves as the principal cereal food of the peasantry, and is also fed to stock, especially pigs. Except in years of crop-failure there is a large surplus for export. **Wheat** is second in importance, and grows on the northern Plain and in the more fertile valleys, but in the mountain districts, and especially in Bosnia and Herzegovina, there is insufficient to meet the local demand. There is, therefore, considerable internal movement of wheat, but, again, there is a fluctuating exportable surplus. *Sugar-beet* is cultivated to a certain extent in the Morava valley (old Serbia) and more extensively on the northern Plain, in sufficient quantity to meet much of the home demand. **Tobacco** is a valuable crop in Herzegovina, and also in Serbian Macedonia (the Vardar basin), and the crop, after supplying the home demand, is in addition an article of foreign commerce. The broken nature of much of the country, affording a large acreage of sunny sheltered slopes, renders *fruit* culture of great importance. **Plums** are the staple of the orchards, and dried plums (prunes or Bosnian plums) are a leading article of commerce. Plum marmalade is largely manufactured, and plum brandy is very generally consumed. The **vine** is also important, especially in the Save and Drave valleys and on the hills between these rivers, and also in the hot dry valleys of Herzegovina and Dalmatia. In the two latter regions, where the valleys open to the Adriatic and have the characteristic hot dry summer of the Mediterranean littoral, a great variety of **fruits**, including figs, olives, pomegranates, apricots, tomatoes, come to perfection, and these find a ready market in the interior of the State. *Silk*-culture is characteristic of the Upper Vardar valley, the output being nearly 100 tons of cocoons.

Both on the plains, where the pastures are rich, and in the mountain region, where there are extensive natural pastures, **cattle-rearing** is important, and in most districts attention is given to the breeding of **pigs**, feeding-stuffs such as maize and barley being abundant; there is therefore a large export of *live-stock*, besides meat and hides. *Sheep* and *goats* are reared by the peasants for their milk, from which cheese is made for local use, but the sheep are of a coarse-wooled variety. Unscientific goat-rearing should be discouraged owing to the damage done by these animals to young trees. The more remote mountain regions, and the poorly-grassed belt draining to the Mediterranean, have the greatest number of sheep and goats per head of population, and in these areas there is an annual movement of the flocks to the higher pastures in summer. *Poultry* are very numerous as in all peasant-farming areas, and a large trade in eggs and birds has been developed, packing and transport being well organized. A recent estimate of live-stock gives the following figures: Cattle, $3\frac{1}{2}$ millions; pigs, $2\frac{1}{2}$ millions; sheep, 8 millions; goats, $1\frac{1}{2}$ millions.

As has been stated, forests cover a very large area in Yugoslavia, and **timber** has become a valuable article of commerce, especially as the Mediterranean lands farther south are very poor in this commodity. Up to an altitude of about 2,400 feet, deciduous trees predominate, the *beech* being most abundant in Bosnia, and the *oak* together with the beech being important in Serbia and Slovenia; on the higher mountains the forests are coniferous, and *spruce* is important. The Bosnian forests have been exploited by Italian and other foreign capitalists, and much timber goes by rail to Sebenico for Italy and France, while much goes inland to Hungary. The Serbian forests have been neglected, but an enlightened policy of

Yugoslavia.

scientific development and conservation is being adopted for the country as a whole.

The *mineral* wealth of the Balkan peninsula generally is always declared to be very great, but lack of labour (owing to the attachment of the peasantry to the land), of capital, and of transport facilities has prevented any large-scale development. There are **lignite** beds on the northern borders of the uplands, both in Bosnia and Serbia, the former yielding some $3\frac{1}{2}$ million tons annually and the latter about $\frac{1}{2}$ million. * Since wood and charcoal are largely used for domestic heating the *per capita* consumption of coal is not great, but for the railways and for industrial development an import is necessary. The mountainous nature of much of the country, and the heavy rainfall, especially on the north-western mountains, ensures an abundance of *water-power*, chiefly used at present on a small scale for domestic lighting. **Iron ore** is mined to the south of Laibach and in Bosnia, and lately also in the copper-mining region of North-east Serbia. The output is 350,000 tons. **Copper** is obtained from the Bor and other mines of Serbia (the output of ore being about 300,000 tons), and other minerals now exploited are antimony, manganese, chromium, silver and lead.

Along the Adriatic (including the Dalmatian) coast, with its fringe of islands, and mountainous hinterland, the male inhabitants are traditionally fishermen and sailors, and the *tunny* and *sardine* fisheries are of some importance.

The *manufactures* of Yugoslavia have, as a rule, only local importance, and are centred at the larger towns, including Belgrad, Zagreb, Ljubljana, Sarajevo, and Esseg (on the lower Drave). Here there are engineering shops, and small textile mills: Zagreb has glassworks, and at Sarajevo carpets are woven. There are, however, very important *iron and steel* works at Vares and Zenica to the north of Sarajevo in Bosnia. There are also large *chemical* works in Bosnia, based on the local salt and lignite, including a calcium-carbide plant using hydro-electrical power at Jajce: these do an export trade valued at £ $\frac{1}{2}$ million. *Furniture* is manufactured, including bentwood at Varazdin (Croatia). Apart from these, the industrial enterprises are mainly concerned with the working up of farm produce, and include breweries, tanneries, flour and saw-mills, preserve factories and sugar refineries.

Trade Relations.—The fact that Yugoslavia is separated either by difficult country or by foreign territory from the Mediterranean Sea determines that commercial relations are most readily developed with the Central European States. Agricultural machinery, railway plant, stationary engines and hardware are in demand, and can be supplied by Czechoslovakia and Germany or by the engineering firms of Vienna and Budapest: timber, grain, tobacco, plums, animal products and minerals are available in return. * The railways to the Adriatic Sea necessarily follow zigzag routes across the mountain barrier, and this is narrowest behind Fiume, which is thus the natural outlet for the productive northern plains if they are to trade overseas. Fiume has now become Italian owing to Italy's determination to dominate the Adriatic, but it is through this port that trade with Great Britain, e.g. in cotton and woollen textiles, machinery, and coal, in return for timber, raw material and food-stuffs, might be established. The fine harbour is capable of accommodating the largest vessels. The trade with Britain is, however, very small. Italy

Zululand.

already takes an important part in the trade of the new State, now her neighbour, since she, too, has manufactured goods to dispose of (cottons, silks, chemicals, automobiles) and has an insufficient supply of home-grown grain and timber. Much timber and some grain moves through the Yugoslav port of Split (Spalato). It is significant that an Italian bank is opening at Zagreb and Belgrad, the centres to which the British manufacturer should direct his attention. Serbia has an outlet to the Ægean through the Greek city, Salonica, which will serve Serbian Macedonia, and stands at about the same distance from Belgrad as does Fiume. The railway passes over difficult country, but it forms part of the most direct route from Central Europe to the Near and Far East, and hence is likely to grow in importance. The minor ports of the Adriatic, including Ragusa and Dubrovack, are too remote from the centres of dense population to have more than local importance.

General Information.—The currency of Yugoslavia is on a gold basis, the unit being the *dinar*, equivalent to a gold franc (i.e. normally 25½ dinars equal £1 sterling). The National Bank has power to issue notes. The metric system of weights and measures is in general use. The chief foreign banking establishments are the British Trade Corporation and the Franco-Serbian Bank, with London offices.

Mails take 2½ days to reach Belgrad overland. There are British Consuls at Zagreb and Sarajevo, Vice-Consuls at Belgrad, Split, Dubrovnik, Vis, Susak and Skoplie. A Commercial Secretary is attached to the British Legation.

YUKON

See **Canada**, p. 95.

ZANZIBAR

See **British East Africa**, p. 70.

ZULULAND

See **British South Africa**, p. 78:

APPENDIX

EXCHANGE RATES FOR 1929.

Place.	Parity.	June, 1929.	Jan., 1930	Coin.
New York	4·86 $\frac{2}{3}$ to £	4·84 $\frac{3}{4}$	4·86 $\frac{3}{4}$	dollar
Montreal	4·86 $\frac{2}{3}$	4·89 $\frac{3}{8}$	492	dollar
Paris	124·21	123·95	123·9	franc
Brussels	35·00	34·91	34·93	belga
Milan	92·46	92·68	93·0	lire
Berne	25·22 $\frac{1}{2}$	25·20	25·14	franc
Athens	375	375	375	drachma
Helsingfors . . .	192 $\frac{3}{4}$	192 $\frac{7}{8}$	193 $\frac{3}{4}$	F. mark
Madrid	25·22 $\frac{1}{2}$	34·52	38	peseta
Lisbon	53 $\frac{1}{2}$ d.	108 $\frac{1}{2}$	108 $\frac{1}{16}$	escudo
Amsterdam . . .	12·107	12·07 $\frac{3}{8}$	12·09	florin
Berlin	20·43	20·33	20·38	mark
Vienna	34·58 $\frac{1}{2}$	34·49 $\frac{1}{2}$	34·61	schilling
Budapest	27·82	27·82	27·83	pengö
Prague	164·25	163 $\frac{5}{8}$	164 $\frac{1}{2}$	krone
Warsaw	43·38	43 $\frac{3}{16}$	43 $\frac{3}{8}$	zloty
Riga	25·22 $\frac{1}{2}$	25·21	25·22	lat
Bucharest	813·6	817	818 $\frac{1}{2}$	leu
Istambul	110	1004	1025	piastre
Belgrad	25·22 $\frac{1}{2}$	276	275 $\frac{1}{4}$	dinar
Kovno	48·66	48 $\frac{7}{8}$	49	litas
Sofia	673·659	670 $\frac{1}{2}$	673 $\frac{1}{2}$	lev
Réval	18·159	18·195	18·20	E. krone
Oslo	18·159	18·195	18·21	krone
Stockholm	18·159	18·09	18·14	krone
Copenhagen	18·159	18·20	18·20	krone
Alexandria	97 $\frac{1}{2}$	97 $\frac{1}{2}$	97 $\frac{7}{16}$	piastre
Bombay	18d.	1/5 $\frac{7}{8}$	1/5 $\frac{7}{8}$	rupee
Kobe	24·58d.	1/9 $\frac{1}{2}$	2/0 $\frac{1}{4}$	yen
Shanghai	—	2/5	2/0	tael
Hong-Kong	—	1/11 $\frac{15}{16}$	1/8	dollar
Singapore	2/4	2/3 $\frac{3}{4}$	2/3 $\frac{3}{4}$	dollar
Rio de Janeiro . .	—	5 $\frac{1}{8}$	5 $\frac{1}{4}$	milreis
Buenos Aires . . .	47·577d.	47 $\frac{5}{16}$	45	dollar
Valparaiso	40 to £	39·6	39·82	dollar
Montevideo	51d.	47 $\frac{3}{4}$	45 $\frac{5}{8}$	dollar
Lima	£P = £E	19 $\frac{1}{2}$ %p.	nominal	£P
Mexico	9·76	10·13	10·10	peso
Ecuador	24·335	24·47	—	sucres
Venezuela	25·25	25·26	—	bolivar
Bogota	5·00	5·045	—	peso

* p. = premium.

WHOLESALE PRICES FOR 1920 TO 1929.

The index numbers are based on the average prices (for the year 1913 taken as 100) of 60 commodities, including 22 foodstuffs and 38 raw materials. The average index number for 1920 was 328·1, the maximum figure of 352·9 being reached in April of that year. The average for 1921 was 189·5, the average at the opening of 1922 was 162·1, while the figures for 1928 and 1929 respectively have been calculated at 140·3 and 133·8.

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